3.1.10 Visual Qualities

3.1.10.1 Affected Environment

General Description of Project Vicinity

The Project site is situated in the extreme northwestern portion of the western San Gabriel Mountains just east of the intersection of the Antelope Valley Freeway and Soledad Canyon Road. The general area to the west, along the Antelope Valley Freeway, is dotted with new residential developments that interrupt the otherwise undeveloped terrain that is mainly composed of steep mountains to rolling hills. Farther east of the site, the number of developments lessens substantially, and the natural terrain is the primary visual element until the outskirts of Acton.

The Project is located mainly on the south side of a visually dominant ridgeline that separates Soledad Canyon from the Antelope Valley Freeway. The mine site consists of a northeast-southwest trending ridge of conglomerate rocks. This ridge has been deeply eroded by a number of canyons extending in a north-south direction. Elevations range from about 1,875 feet above mean sea level at the western edge of the property to a high of 2,830 feet at the eastern edge. No naturally occurring flat areas are within the mine site. The topography is extremely rugged, with some slopes approaching 45 degrees or higher.

A complex mosaic of plant communities is found in the area. In general, low-density vegetation occurs on the south-facing slopes that are proposed for mining, while a denser vegetation mixture is found on the north-facing slopes proposed for fines storage. Previous onsite mining activities by other operators in Areas A and B have resulted in landform modification including roads, grading, elimination of vegetation, excavation, and flattening portions of the hillside at elevations above Soledad Canyon Road.

As presented in Section 3.1.12 (Land Use), the predominant land uses in the Project vicinity are surface mining and open space. Three other surface mining projects are within ¼ mile of the eastern site boundary. The Angeles National Forest lies generally to the south and southeast of the site, including a mining operation in Section 15. Most of the other lands adjoining the Project are currently vacant. The nearest residence is a former ranch, now used as a rural residence, located approximately ¼ mile south of the south-central boundary of Area A. This residence is sheltered from the Project site by a hillside to the north and a north-south ridgeline to the east. The residence is adjacent to the railroad line. Other land uses in the area include mobile home and recreational vehicle (RV) parks. One RV area is located at the west end of Soledad Canyon about ¼ mile southwest of the project boundary. Other RV park locations are approximately 2 miles east of the project boundary.

Visual Characteristics and Viewshed Profiles of Project Site

Visual characteristics of the Project boundary are described through photographs and the text below. Figure 3.1.10-1 indicates the viewshed locations from which the photographs were taken. Views of the Project site have been examined from the most likely public viewing locations--the Antelope Valley Freeway and Soledad Canyon Road.

The northern side of the site is bordered by Bee Canyon, which flattens at the base of the mountain and meets the Antelope Valley Freeway as shown on Figure 3.1.10-2, viewshed Locations A and B. Location A is along Soledad Canyon, and Location B is along the Antelope Valley Freeway.

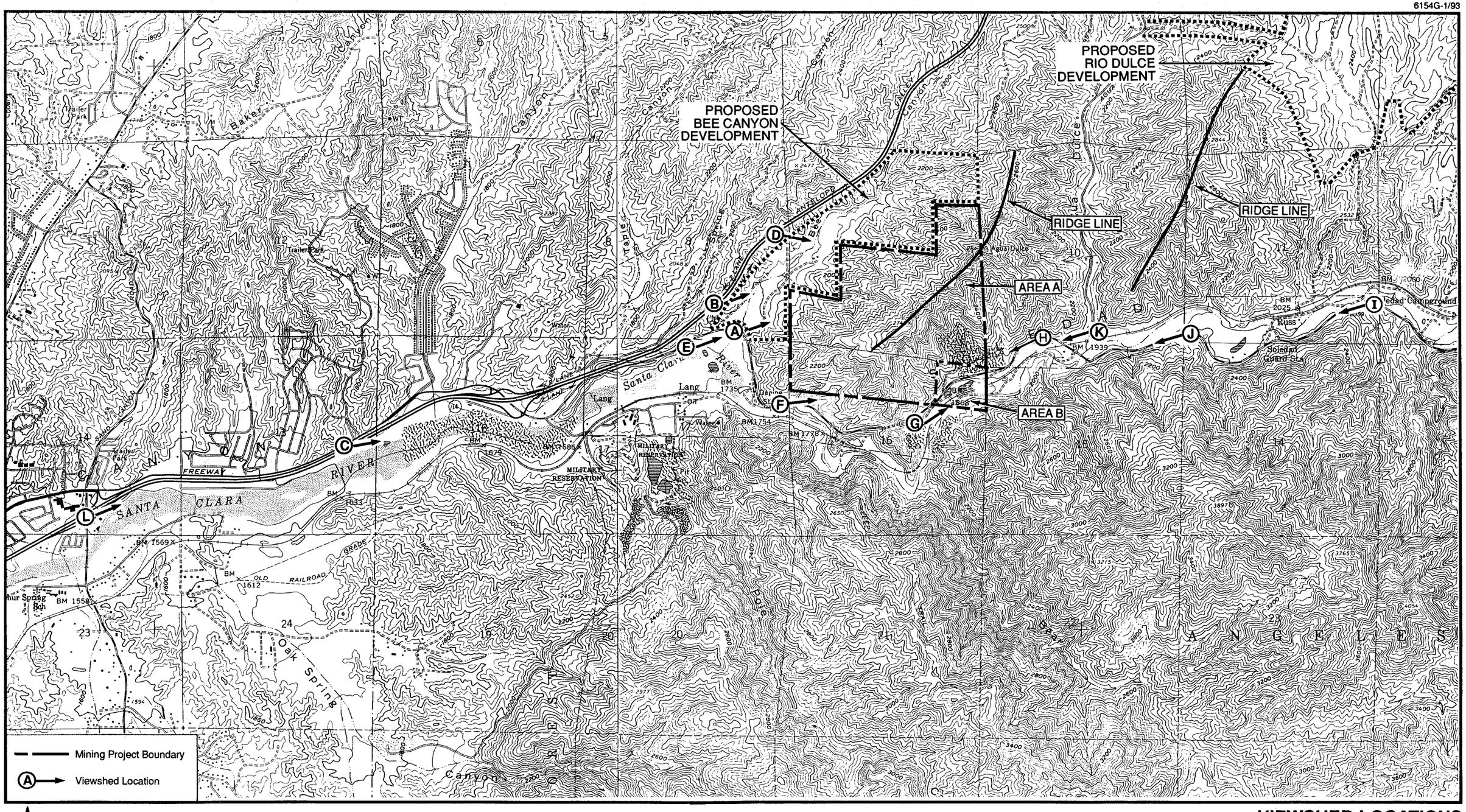
For the northeast-bound traveler along the Antelope Valley Freeway, a view of the site is shown on Figure 3.1.10-3, viewshed Location C. This location is approximately 4,000 feet east of the Soledad Canyon Road exit on the freeway. The western portion of the site generally faces the viewer from this location. Further west of the Project site and north of the Antelope Valley Freeway, views are very similar to Location C. The land use in this area includes residential including new homes being constructed on hillsides near the freeway within the graded area visible on Figure 3.1.10-3, Location C. Farther west (viewshed Location L), some portions of Santa Clarita can see the western portion of the Project site as a small portion of the background mountain terrain.

For the Antelope Valley Freeway westbound traveler, the view is as appears on Figure 3.1.10-3, Location D. This is the northwest portion of the proposed site including three canyons that make up the proposed NFSA.

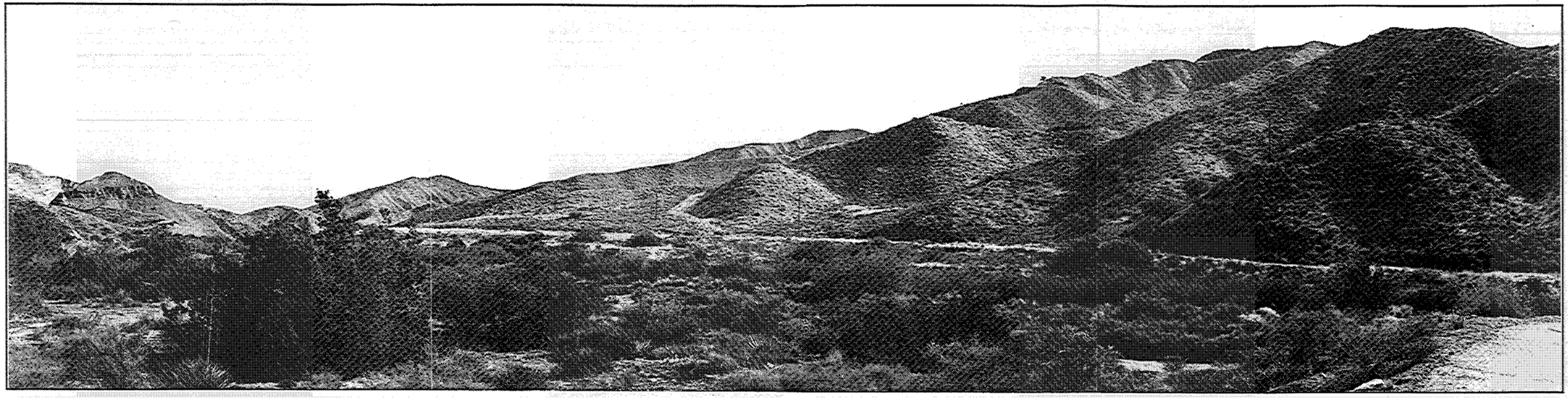
From Soledad Canyon eastbound, the site appears as shown in viewshed Location E on Figure 3.1.10-4, which includes the view of the western portion of the site. Also from Soledad Canyon eastbound, the southern portion of the site is shown on Figure 3.1.10-4 for viewshed Locations F and G. Location F is at the approximate area of the southwest corner of the Project boundary. Viewshed Location G (Figure 3.1.10-4) shows a portion of the existing operation in the southeastern portion of the site. Figure 3.1.10-5, viewshed Location H, is taken from Soledad Canyon Road in the immediate vicinity of the proposed administration area and access road. Along Soledad Canyon, the Santa Clara River runs parallel to the southern site boundary. The river, Soledad Canyon, and a SP Railroad right-of-way cross the southeastern portion of Area B of the Project site.

Views from Soledad Canyon westbound are depicted on Figure 3.1.10-6, viewshed Locations I, J, and K. Traveling westbound, the first opportunity to view the site is at a distance of approximately 2 miles from the site (Location I on Figure 3.1.10-1). From this location westbound, several opportunities to view the site are afforded along Soledad Canyon Road (see Location J). The eastern site boundary is also shown on Figure 3.1.10-6, Location K, taken near the junction of Soledad Canyon and Agua Dulce Roads.

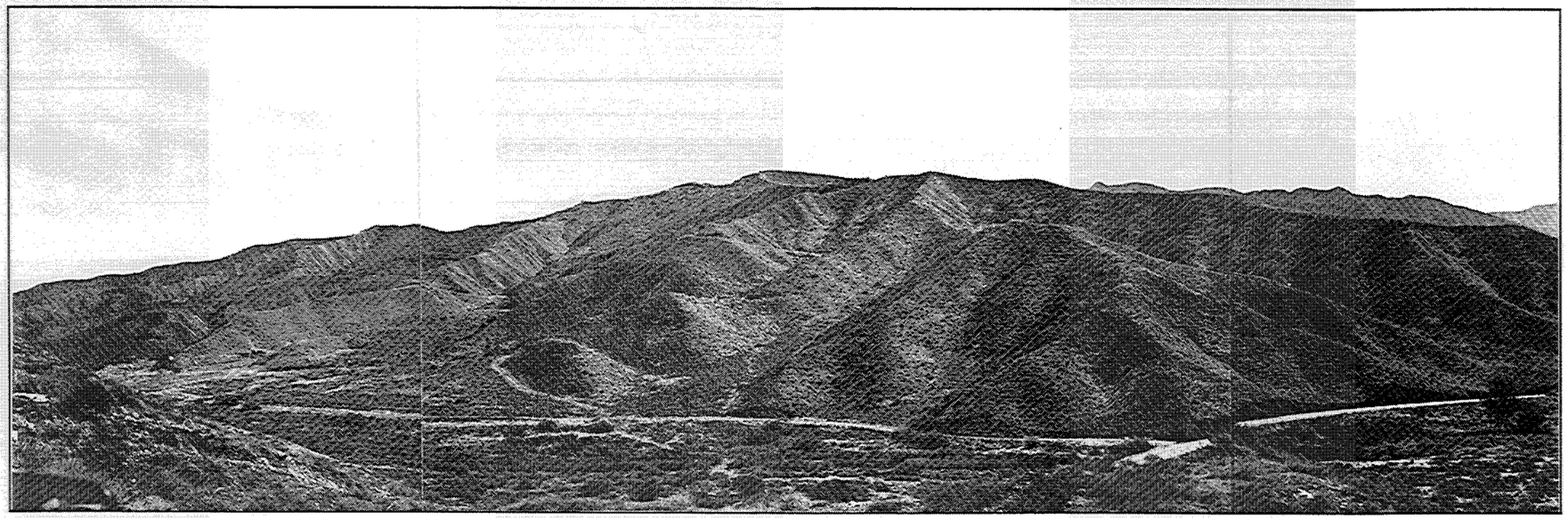
The Project site can also be seen from elevations that are higher than the Project site. This includes portions of the Angeles National Forest to the south of the site. Within the Angeles National Forest, the elevation reaches about 4,800 feet about 3 miles south of the site. A direct line of sight exists from this elevation to the proposed area of mining, which would be visible to the occasional hiker in the area.



VIEWSHED LOCATIONS
Figure 3.1.10-1

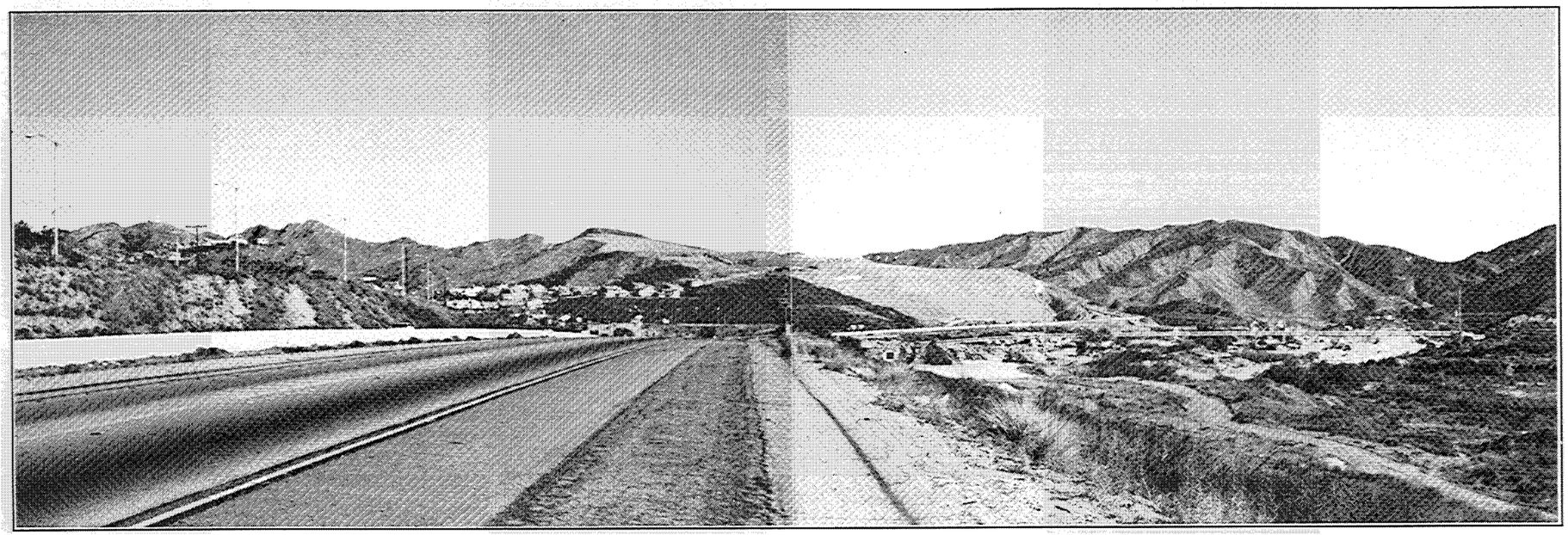


Viewshed Location A - from Soledad Canyon Road

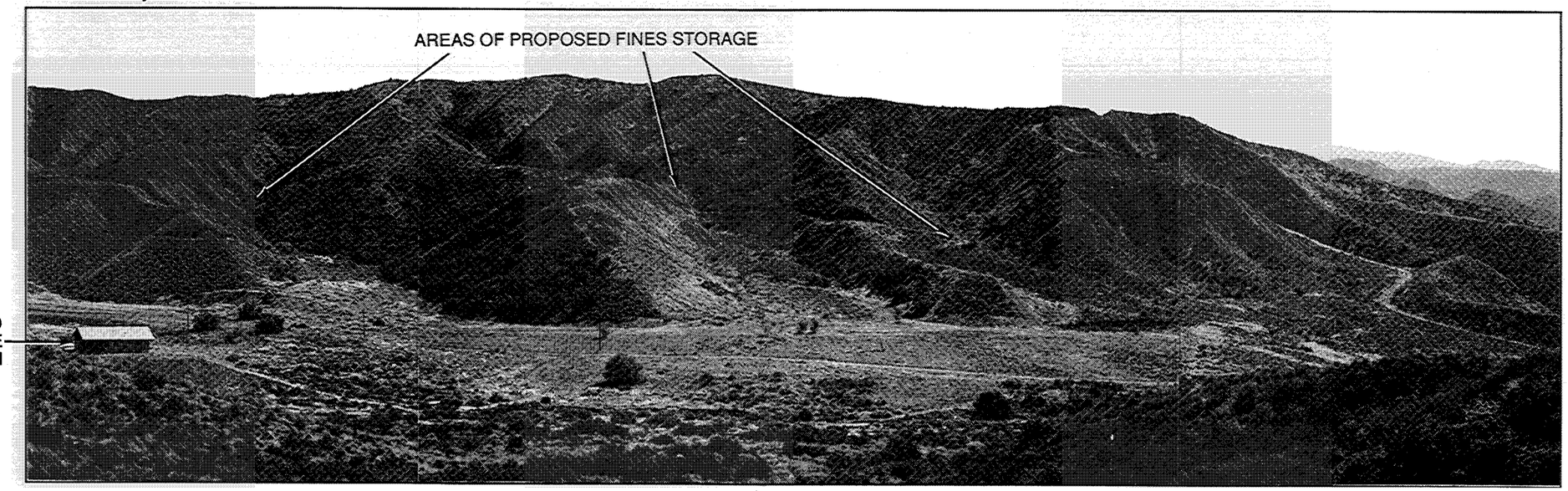


Viewshed Location B - from Antelope Valley Freeway

NORTHWEST/WEST SIDE OF PROJECT SITE -
PROPOSED FINES STORAGE AREA
Figure 3.1.10-2

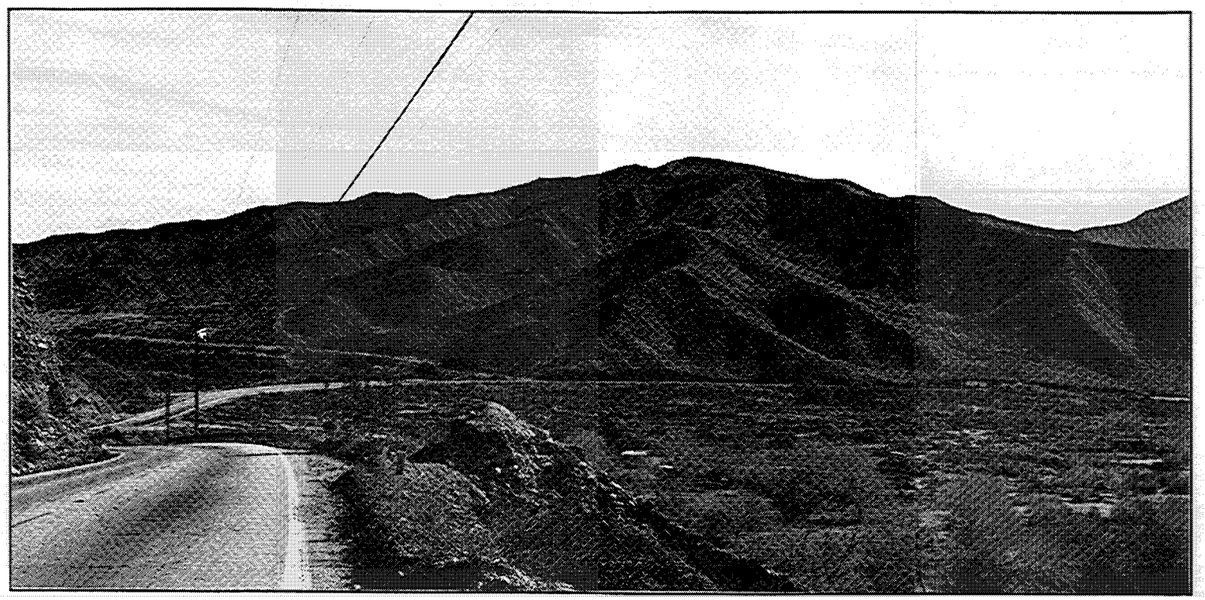


Viewshed Location C - West side of site from Antelope Valley Freeway ≈ 1 mile east of Sand Canyon

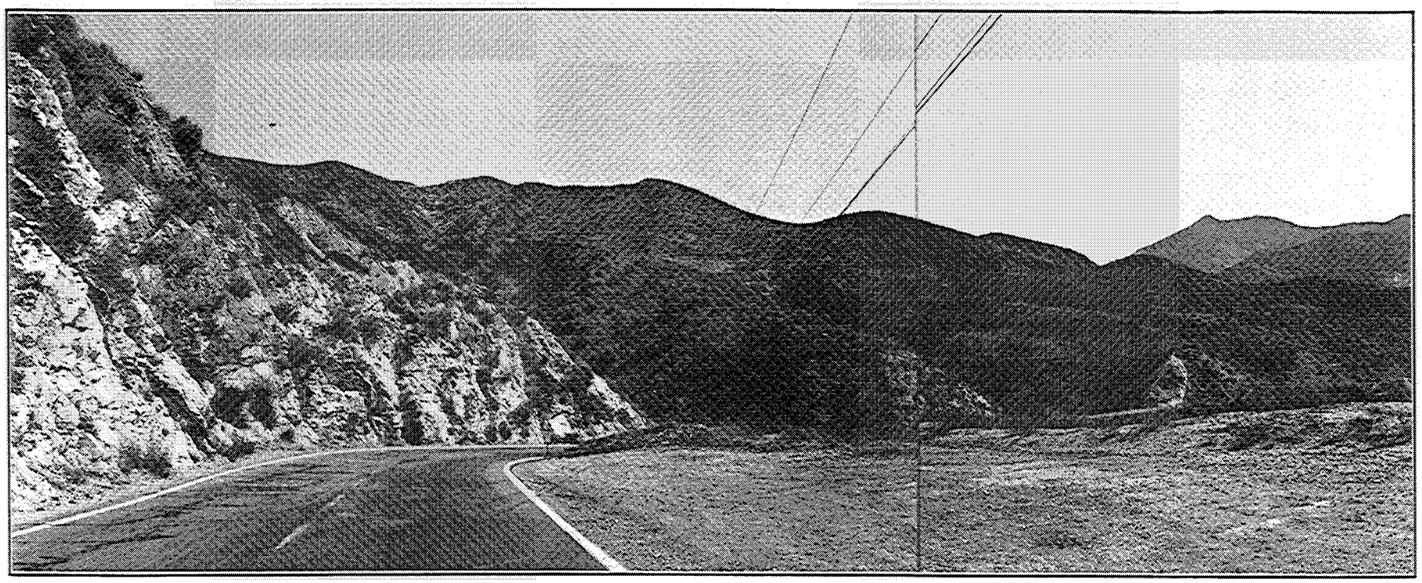


Viewshed Location D - Northwest side of site - Proposed Fines Storage Area

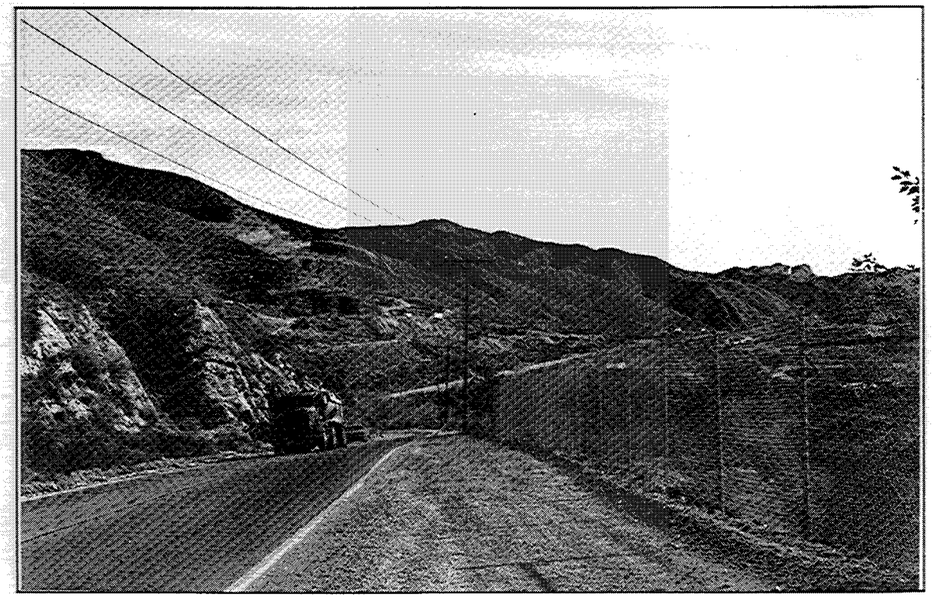
WEST AND NORTH VIEWS OF PROJECT AREA FROM ANTELOPE VALLEY FREEWAY
Figure 3.1.10-3



Viewshed Location E - West side of site

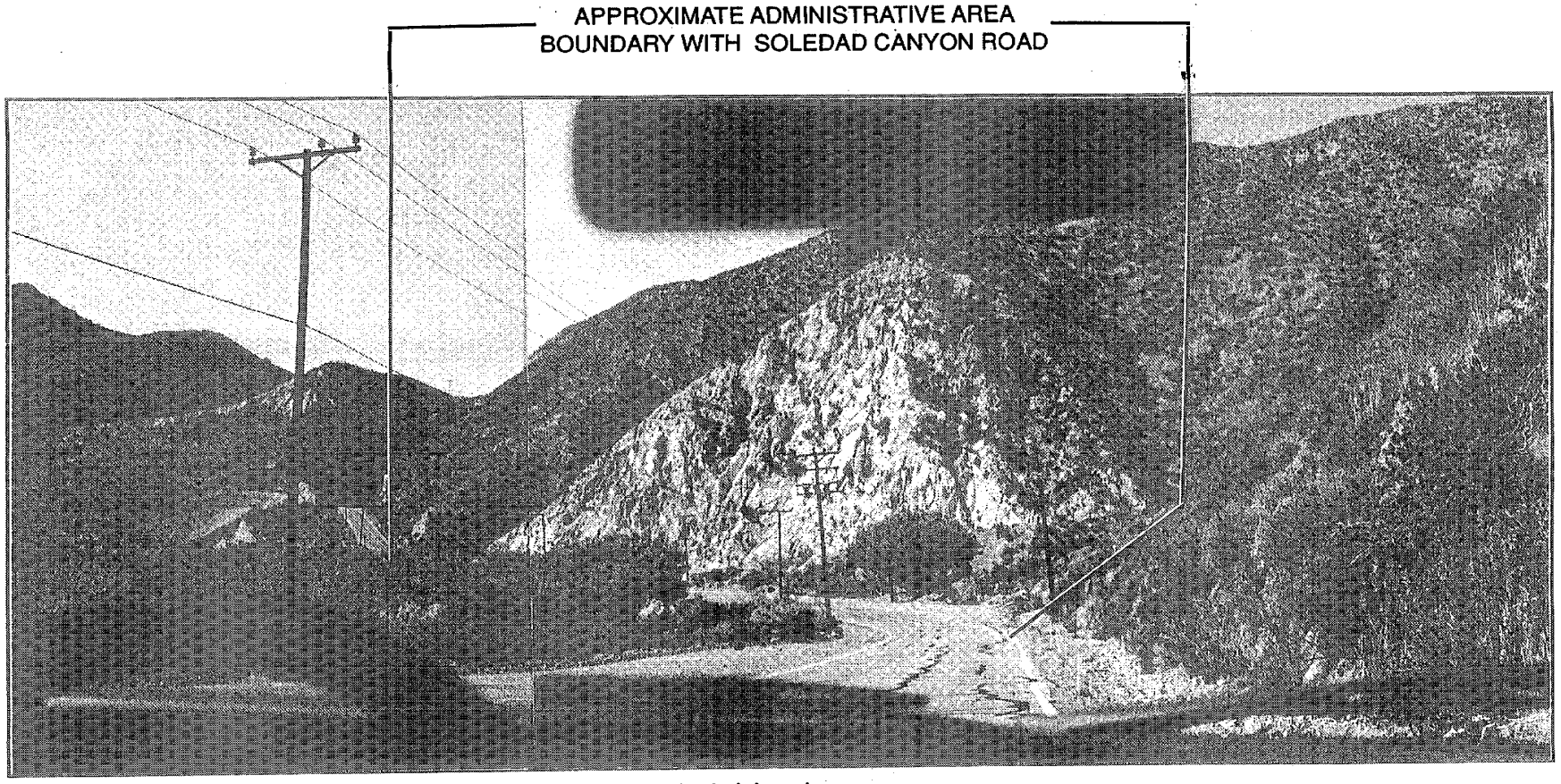


Viewshed Location F - Southwest corner of project boundary



Viewshed Location G - South side of site looking at existing mining facilities

WEST AND SOUTH VIEWS OF PROJECT SITE FROM SOLEDAD CANYON ROAD
Figure 3.1.10-4



Viewshed Location H - In the immediate vicinity of the proposed administrative area

SOUTH SIDE OF SITE AT PROPOSED ENTRANCE TO MINE FACILITY
Figure 3.1.10-5

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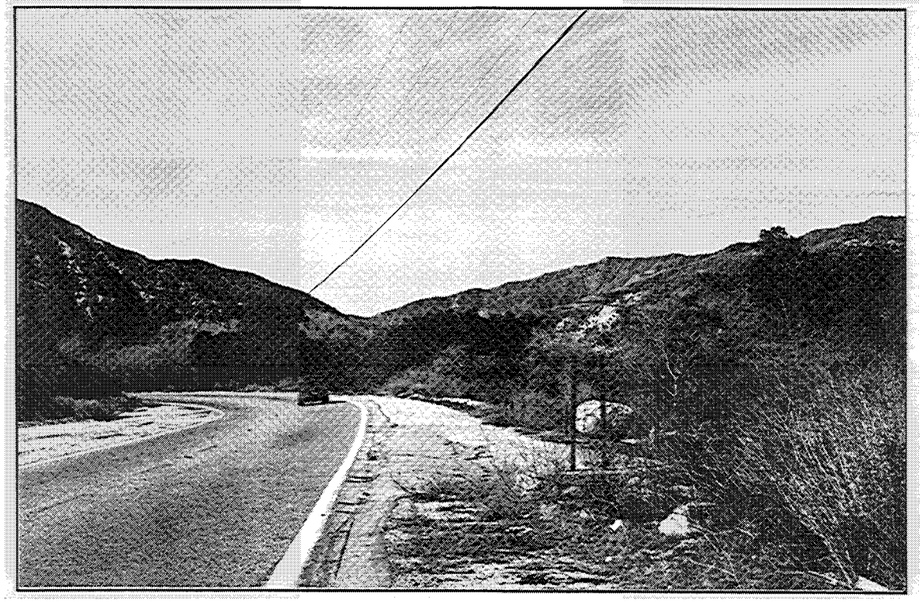
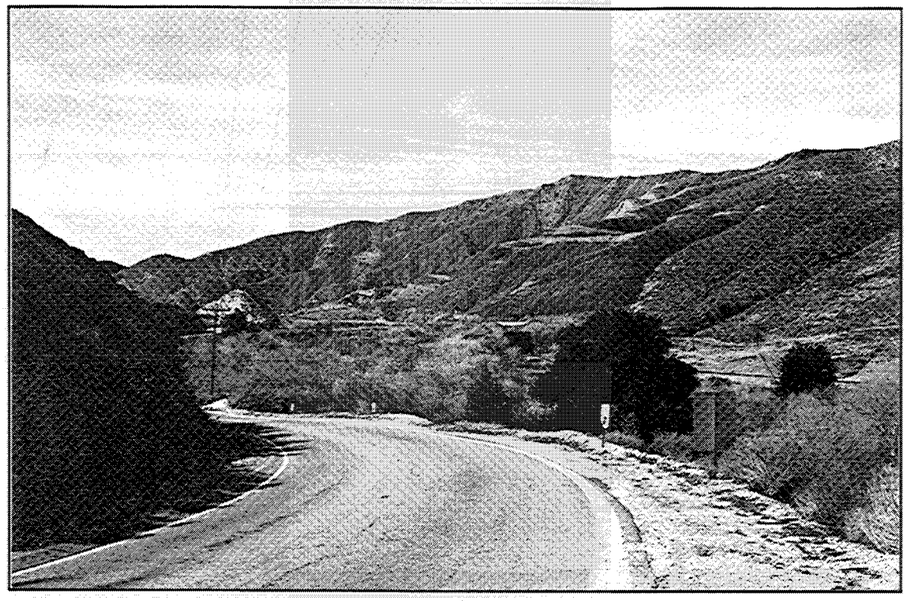
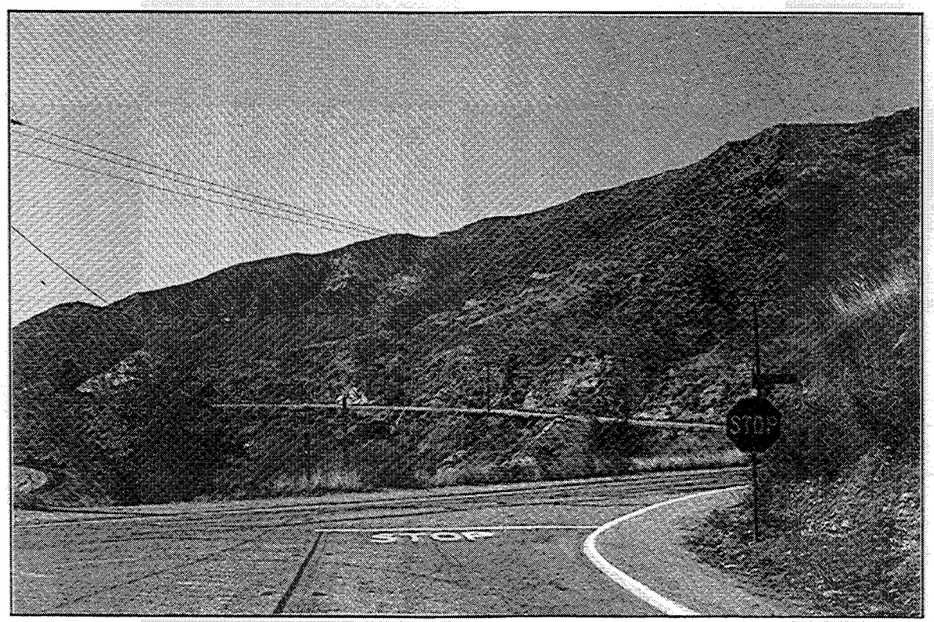


Viewshed Location I - Approximately 2 miles from site



Viewshed Location J - Approximately 1 mile from site



Viewshed Location K - Near Agua Dulce and Soledad Canyon Roads intersection

EAST SIDE OF PROJECT SITE
FROM SOLEDAD CANYON ROAD
Figure 3.1.10-6

Aesthetics Policy Issues

As discussed in Section 3.1.12, the Project area is located within the boundary of the Santa Clarita Valley Area Plan. That portion of the Antelope Valley Freeway fronting the project is defined as a secondary priority study route for scenic highways in the Area Plan. The secondary study designation is in recognition that other highways or portions of highways in the area are deemed to have more potential for scenic designation.

Within the Area Plan, Section V.C. (General Conditions for Development), nonresidential uses in nonurban areas should be landscaped, fenced, and screened to minimize visual impact on surrounding uses, and where appropriate, structures in hillside areas should be designed to preserve scenic value. Major ridgelines should also be preserved whenever possible.

Nighttime Lighting

The project site is predominantly vacant with no existing lighting, although the former mining facilities on the site do have lighting available. Several sources of night lighting exist in the immediate site vicinity including traffic and roadway lighting on the Antelope Valley Freeway, facility lighting at several industrial operations west of the site in the Lang Station vicinity, and street lighting and other sources of urban lighting within the City of Santa Clarita and adjacent developed areas. Generally, the amount of night lighting diminishes east of Santa Clarita.

The levels of lighting at night in the project vicinity vary from low to very low. A low level of night lighting is characteristic of an urban residential community, where the main sources of illumination are street lighting and property lighting. Very low lighting is characteristic of a rural residential community with no street or other general forms of illumination (such as illumination of parking lots and outdoor advertising). The town of Agua Dulce does not have street lighting in order to maintain a rural ambience at night.

3.1.10.2 Environmental Effects

Determination of Impact Significance Criteria

Methodology

Studies of visual perception have shown that factors such as visual character, visual compatibility, and viewer sensitivity can be used as measures to determine impact significance. Visual character can be defined as landscapes composed with a distinctive variety of form, line, color, and/or texture.

The visual character of a site may be composed of a combination of foreground (close in shrubbery and trees), middleground (lake or waterbody), and background (distant rolling hills) as strong visual elements. The stronger the influence exerted by these elements, the more interesting the landscape.

Visual compatibility (or incompatibility) is determined by the degree to which the introduction of an anomalous structure or element into the visual landscape blends in or is compatible with the existing landscape. Proximity and relative scale are factors used in defining compatibility. The level of significance of modifications to a viewshed is further defined by viewer sensitivity. Viewer sensitivity is a noneconomic measure of public concern for scenic quality. It is a measure of the changes in the expectation of viewers and the relative importance of viewsheds to those who have views of a particular site. Examples would include those living in an area with a view of a project, persons traveling through an area that includes views of a project, and/or recreational or other use areas that may provide views of a project. The level of sensitivity is determined by the number of viewers of a particular viewpoint, the length of time the viewer may see the viewshed, and the proximity or relative scale or predominance of project elements within that viewshed. As the actual or potential numbers of viewers increase, so does the level of sensitivity. As an example, for a housing development on a hilltop with views of a lake, that lake is assumed to be an element of maximum importance. Lesser importance is placed on views of the lake for those who may only drive by it. Also, lesser importance may be placed on a view of a lake that is remote and not generally accessible to large numbers of the public.

Significance Criteria

Impacts for visual assessments are considered to be significant if one or a combination of the following apply:

- changes at the site, including changes to form, line, color, and/or texture substantially degrade the character of the site, degrade an existing viewshed, or alter the character of a viewshed by the introduction of anomalous structures or elements; and/or

- changes at the site that would result in changes in the expectations of viewers (measured against the relative importance of those views) and result in a negative impression of the viewshed.

A significant impact will occur if the proposed Project produces substantial nighttime lighting that poses a hazard or annoyance. This includes changes in conditions defined by bright, uncomfortable, and/or visually disturbing lighting.

Direct and Indirect Effects

GIS Simulations

In order to convey the changes in landform resulting from mining activity, simulations of (1) existing conditions, (2) mining conditions at the end of Phase 2 activity after 20 years (which represents the greatest amount of topographic modification), and (3) conditions at the end of reclamation are presented for representative viewpoint locations. These simulations were generated using a geographic information system (GIS) and are based on viewshed Locations E, F, H, K, D, and L from Figure 3.1.10-1 in the description of existing conditions. These locations were chosen as being most representative of the site. Other locations not selected are

very similar to at least one of the above representative viewpoints. The contouring shown in these simulations is based on the plans for mining completion and reclamation for the Project (site plan).

It is also important to note that these simulations are not exact representations of what the viewer may see. These simulations do not provide details of the viewer's foreground conditions that are very important to the eye. The simulation's purpose is to show changes to the landform only caused by project mining and reclamation activity. In the examples presented below, the landform changes generally occur in the background of the views shown.

Some simulations are presented as being representative of the changes in the overall character of the site only. Other simulations are not only representative of the character of the changes to the Project area but also represent the viewshed from a driver's perspective. Almost all viewers of the Project site will be mobile viewers traveling along either the Antelope Valley Freeway or Soledad Canyon Road.

The latter is presented to emphasize the limited field of view that a driver has in the car while concentrating on the road ahead. Figure 3.1.10-7 demonstrates this limitation. While a viewer can typically see a field of view of about 100 to 120 degrees, this includes the viewer's peripheral vision the outer part of the view that can be seen from the far corner of the eye. The true field of view of a viewer is only about a 40-degree arc of a circle within the viewer shifting his eyes from side to side. Figure 3.1.10-7 shows what may be typical of the limited view from the front seat out of a car window. This demonstrates the portion of a view that can be cut off because of a car's restrictions (e.g., roof, pillars, hood) and from driver concentration limiting the shifting of eyes around the viewshed.

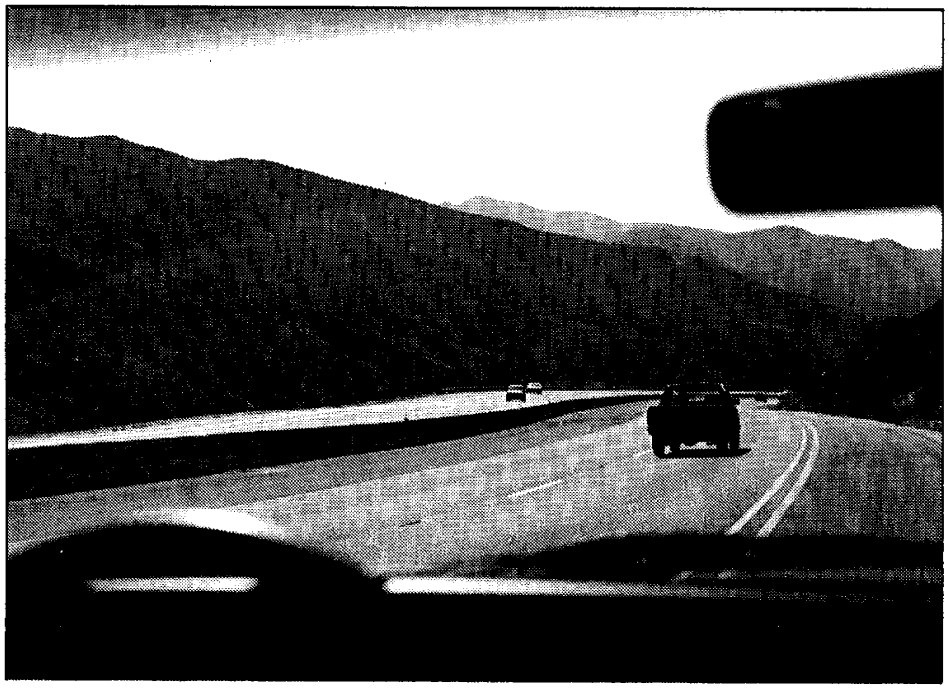
The focused view area becomes particularly important when considering a driver's concentration on a roadway. Many drivers, when they are concentrating on the road in front of them, are not as aware of other surroundings (including landform). Passengers in a car, on the other hand, are not limited to looking only generally forward and therefore would be more aware of surrounding visual elements.

In addition, three color exhibits simulating various stages of completion of the NFSA are included in this section. These computer-enhanced exhibits simulate the appearance of the NFSA as it is completed over the 20-year project life, viewed from the Antelope Valley Freeway side of the site.

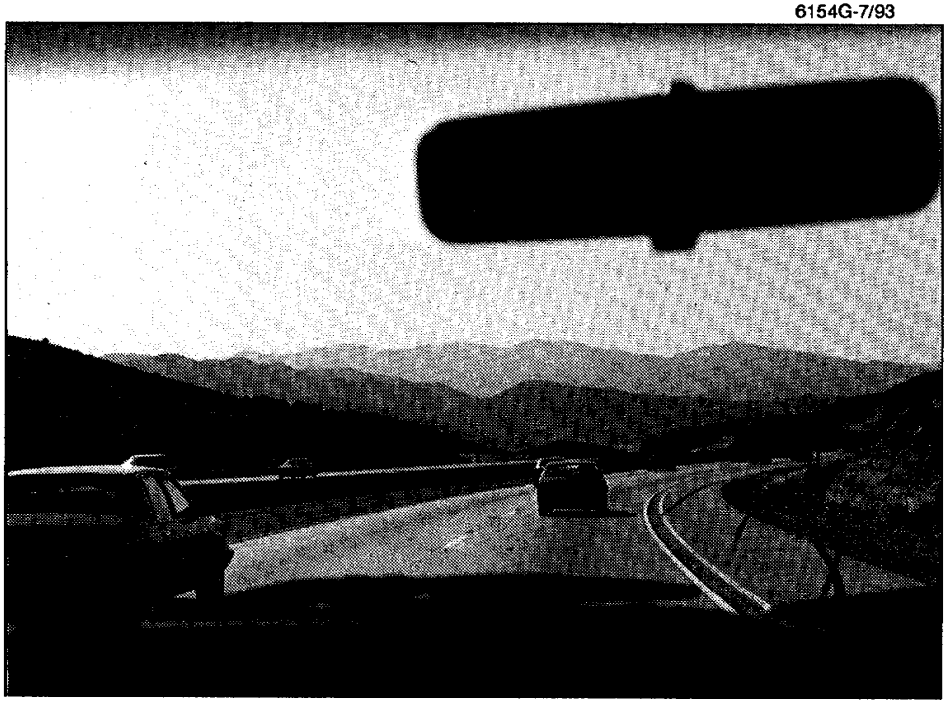
Mining and Reclamation Phasing

During mining, the NFSA will be constructed in 4- to 5-foot lifts from the bottom up. Each successive lift will be set back 8 to 10 feet to produce the overall benched slope of 2:1 (horizontal to vertical). Additionally, for every 100 feet in elevation, a 15-foot-wide access road will be added to allow access for reclamation vehicles and contribute to slope stability. Up to four mining cuts will occur on the southern face as described in the Project description. Haul roads will be up to 80 feet wide. On the south face, mining will progress in a bench configuration for the four cuts. These benches, as well as working roadways, are not depicted on the GIS simulations.

6154G-7/93



a) View from Antelope Valley Freeway westbound approaching project area.



b) View from Antelope Valley Freeway westbound. Project area is falling away from the viewer.

c) View from Soledad Canyon eastbound. Project area is directly in front of the viewer.

LIMITATIONAL CAR VIEWING
Figure 3.1.10-7

Reclamation and revegetation will occur starting every growing season after mining activity in a particular area has ceased. This will apply to the mining areas as well as the NFSA. Because little topsoil in the areas will be disturbed, resoiling is not expected. Benches will be left in place to facilitate water absorption and promote plant growth. During the final phase of reclamation, the roads will be resloped to conform with the natural topography. The length of time for full revegetation of the area is presently unknown because several of the native species have slow growth rates. However, given the timeframe of the Project and the opportunity to begin revegetation of areas early in the Project's life, advances in revegetation technologies can be made during the Project to ensure the long-term success of the reclamation program.

View of Mine Area From Soledad Canyon Looking East

The view from Soledad Canyon looking east and GIS simulations for mining and reclamation are shown on Figure 3.1.10-8. The western face of the topographic formation will not be affected by project operations. From this viewing angle, some Project activity on both the north and south faces will be visible. To the right of the highest point within this viewshed, a mining cut along the ridge will be visible, and some fill from the NFSA will be visible to the left of the high point. At the conclusion of mining, these areas will be visible as shown in the GIS simulation labeled "restoration complete" on Figure 3.1.10-8. Changes to the viewshed will include some modification to the form, line, color, and texture, although the overall character of the site from this viewpoint will not be changed. Form and line changes will result from the topographic alterations, while texture changes include the smoothing appearance from the NFSA and the covering of vegetated areas. Color changes will include removal of vegetation and new covering of fines on the north slope, which is temporary until revegetation can begin, and scarring along the ridgeline from the mining cut.

This view of the western portion of the site is not only characteristic of this side of the site, but it is also representative of driver views. Views of the western portion of the site are visible not only from Soledad Canyon Road but also from the Antelope Valley Freeway for the eastbound traveler. Sensitivity to the site from these locations is high; thus, it is anticipated that, from closer viewing locations, a negative impression of the viewshed would occur, resulting in a significant adverse impact prior to reclamation (see Mitigation Measure VQ1).

After reclamation is complete, the mined cut will be filled back in to approximate existing ridgeline conditions, while the NFSA will remain as a filled-in valley area.

After revegetation, the viewshed will appear very close to the view of existing conditions. Form, line, color, and texture will be restored, and a negative impression of the viewshed should not result. Thus, no residual significant impacts will occur to this viewshed.

View of Project Area From Santa Clarita

GIS simulations from Santa Clarita from location L on Figure 3.1.10-1 are depicted on Figure 3.1.10-9. The view is from the Sand Canyon overcrossing over the Antelope Valley Freeway. The west face of the Project area is the predominant viewshed. This location is presented to supplement the viewshed described on Figure 3.1.10-8 by presenting the west side

of the Project site from a location further west. This view can be considered to be representative of what the community of Santa Clarita sees.

Mining-related changes to the terrain will be visible but will appear as minor changes to the overall viewshed. These changes will primarily appear as line and form changes during mining activity. While the ridgeline will be lowered, the overall character of the background mountains will be altered only slightly. Because of the distance, changes in texture and color from project operations will not be obvious. Because the Project site is not a dominant viewshed feature but only a background element, sensitivity to the Project area from this location is considered moderate to low. Given the distance from Santa Clarita (at least 3 miles west of the site), viewer impressions of the viewshed will change but not significantly. Therefore, impacts on the views from Santa Clarita are less than significant.

After restoration is complete, some residual evidence of the Project will exist from lowering the ridgeline. Again, because of the distance from the viewer to the site, impacts after restoration are less than significant.

View of Mine Area From Soledad Canyon at Southwest Project Boundary Looking East

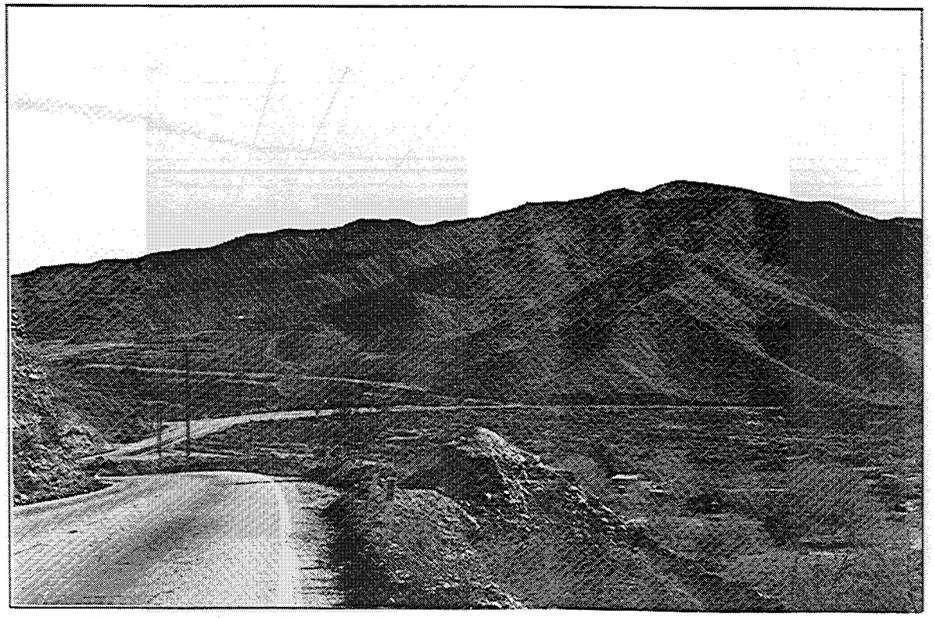
The GIS simulation as shown on Figure 3.1.10-10 at Location F is along the southern boundary of the Project area and represents a traveler along Soledad Canyon Road eastbound. The immediately adjacent landform next to Soledad Canyon Road will not be affected by Project operations. The primary visual disturbance from this viewshed location will be to the ridgeline and background hills that will be cut from mining activity. This particular viewshed is of relatively short duration while traveling along this portion of Soledad Canyon Road. Changes will occur to the character of the viewshed in terms of form, line, color, and texture of the background of these hills. Because of the ridgeline lowering and the driver/viewer directly faces the disturbance, a significant impact will result from mining activity (see Mitigation Measure VQ1).

Restoration will include filling in a portion of the mined-out area to approximate the original ridgeline. When restoration is successful, in that color and texture return to these hilltops, the impact will be reduced to less than significant at this viewshed location.

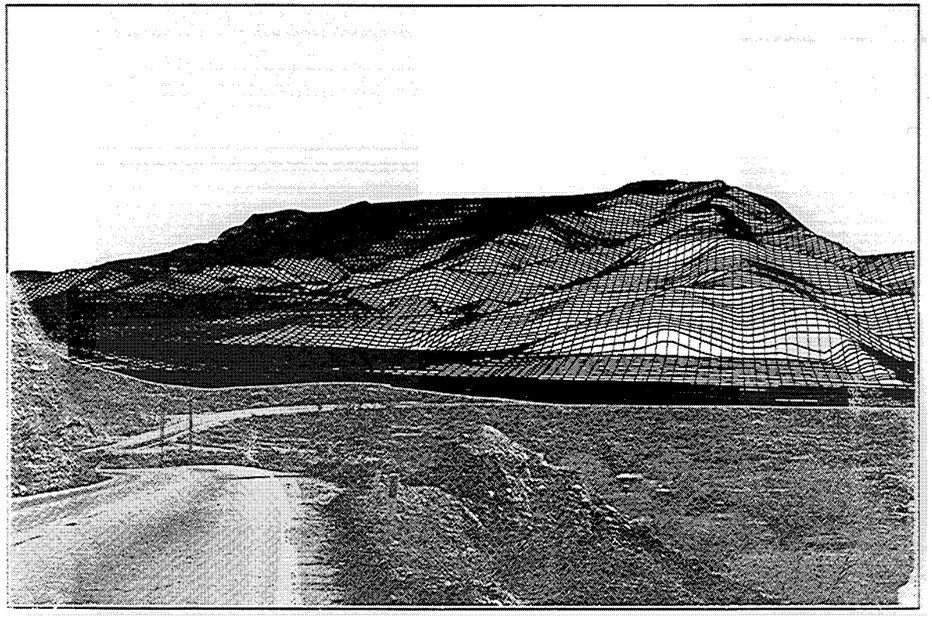
View of Mine Area From Soledad Canyon Within Project Boundary

A portion of Soledad Canyon passes through the Project boundary in the immediate vicinity of the entrance to the administration and facilities area. The simulation depicted on Figure 3.1.10-11 corresponds to viewshed Location H as described in existing conditions. The photograph shown on Figure 3.1.10-11 represents the driver's perspective from this location. Note that the focus is on ground-level views. Because of the proximity to the site, the ridgeline is not visible.

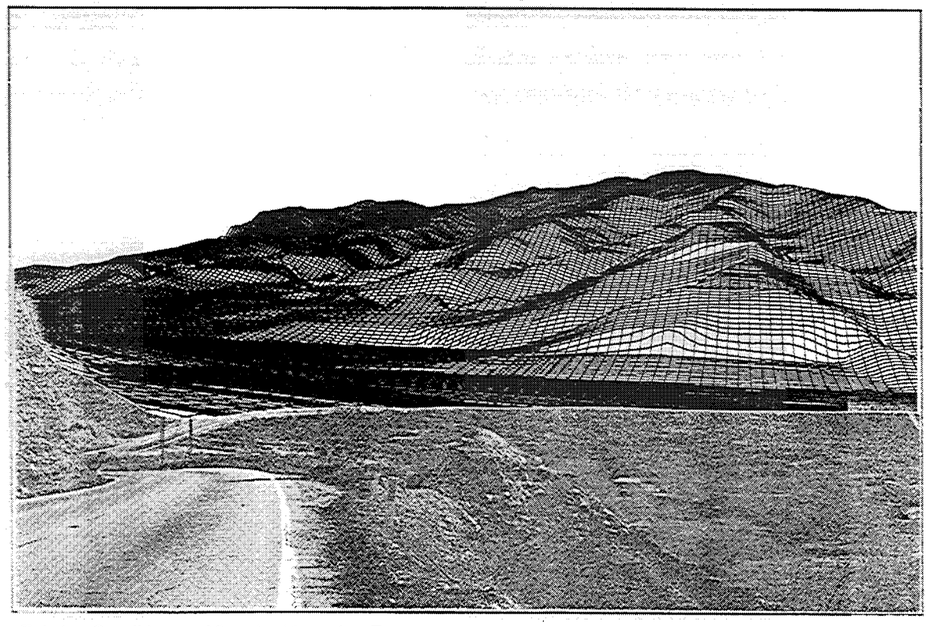
From this viewshed, extensive changes will occur as a result of the Project activity. The primary visual focus will be the plant and mine access road, which would be to the right in the viewshed, and the batch plant and office area, which would be just left of the center of the



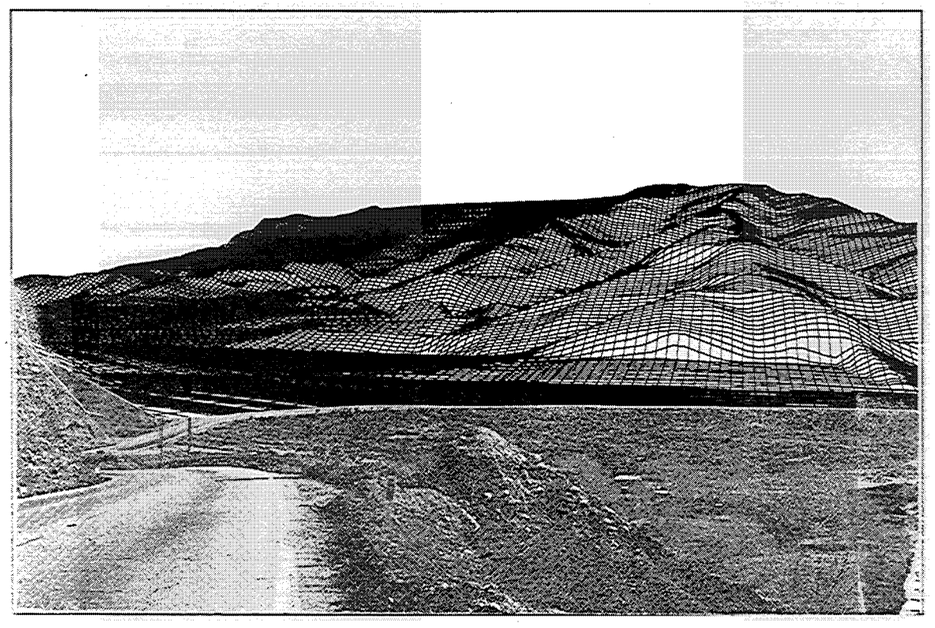
Existing Conditions at Viewshed Location E



Mining Complete at Viewshed Location E



Existing Conditions at Viewshed Location E



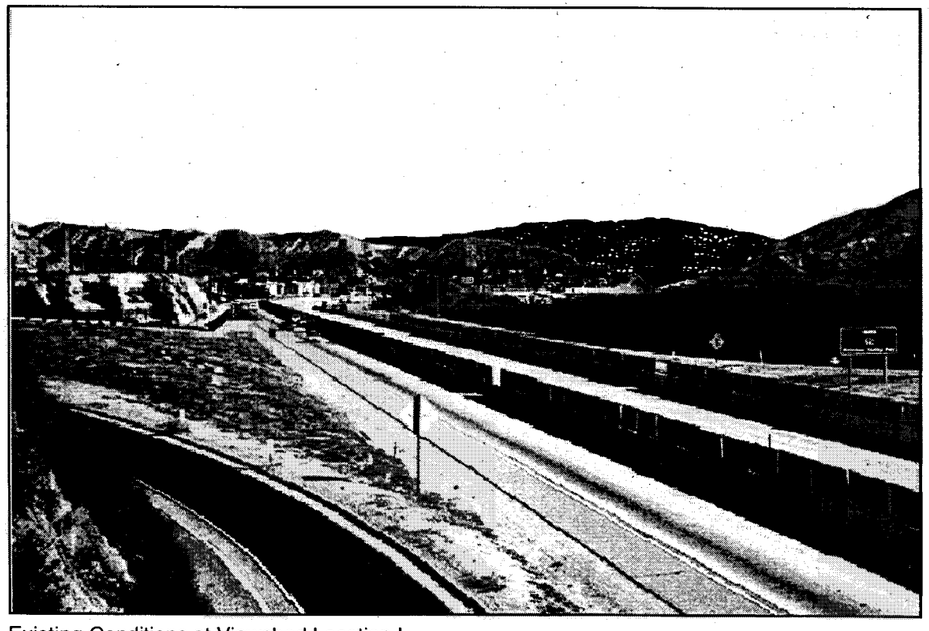
Restoration Complete at Viewshed Location E

N

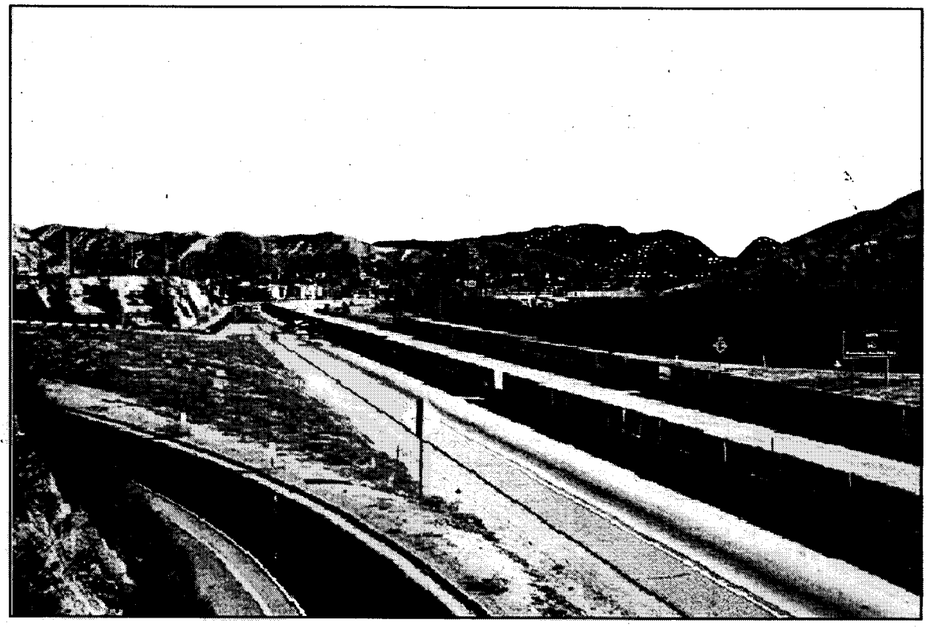
DATA RESOLUTION: 10M
(elevational sample points)
SCALE (grid size): 10M
SOURCE: Chambers Group, Inc.

GIS SIMULATION VIEWSHED LOCATION E
Figure 3.1.10-8

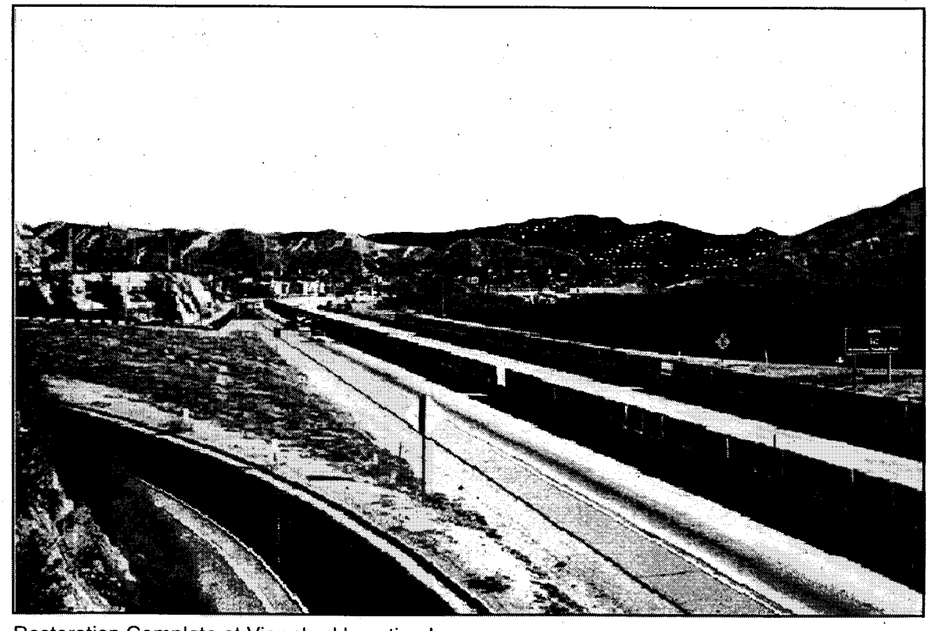
Existing Conditions at Viewshed Location L



Existing Conditions at Viewshed Location L



Mining Complete at Viewshed Location L

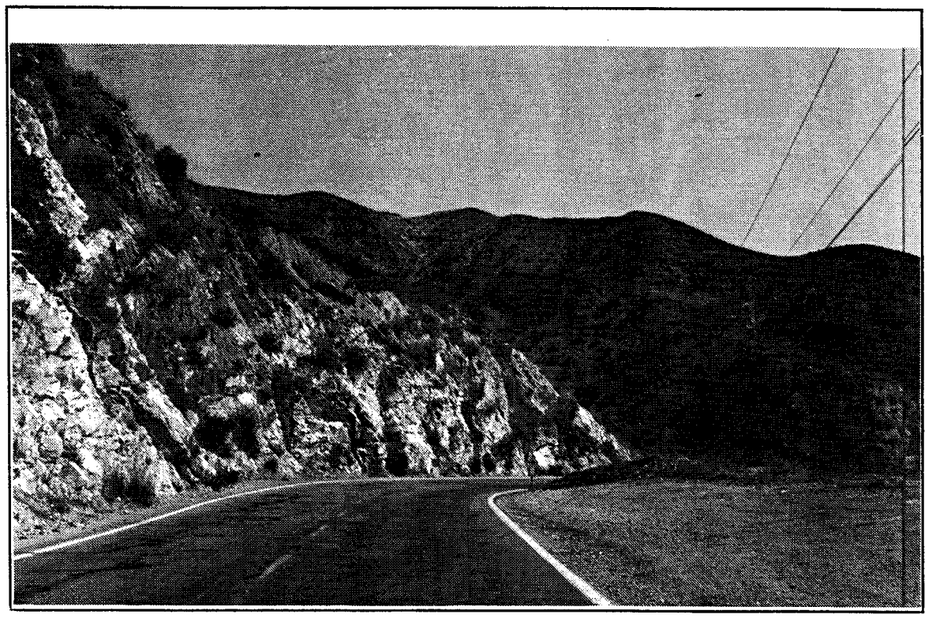


Restoration Complete at Viewshed Location L

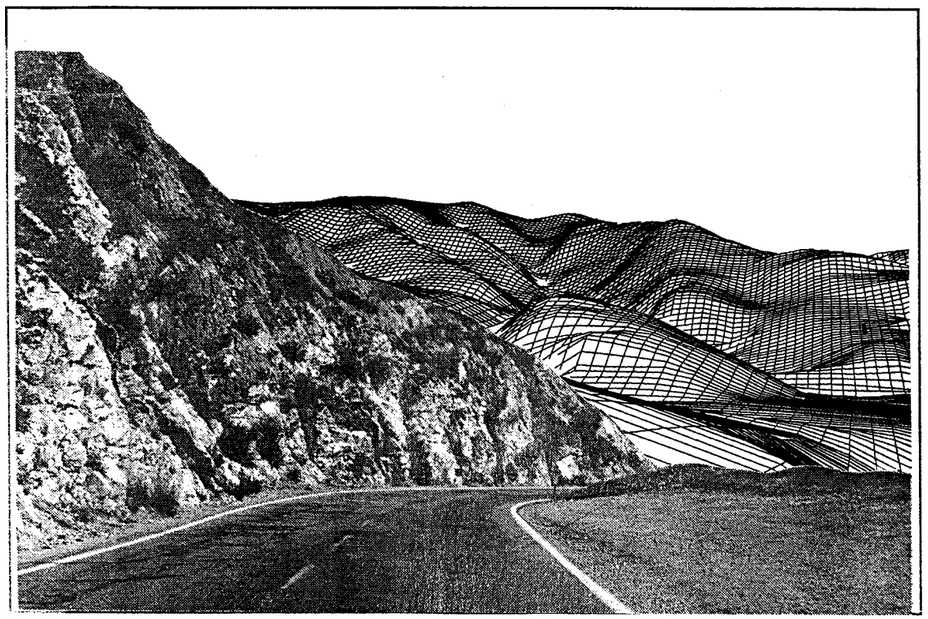
N

Data Resolution: 10m
(Elevational Sample Points)
Scale (Grid Size): 10m
Source: Chambers Group, Inc.

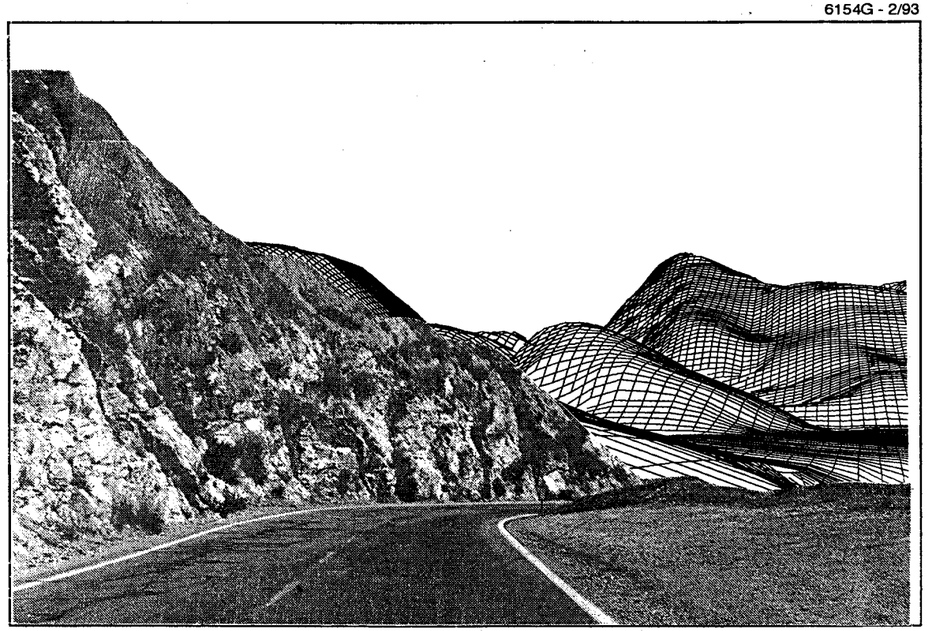
GIS SIMULATION VIEWSHED LOCATION L
Figure 3.1.10-9



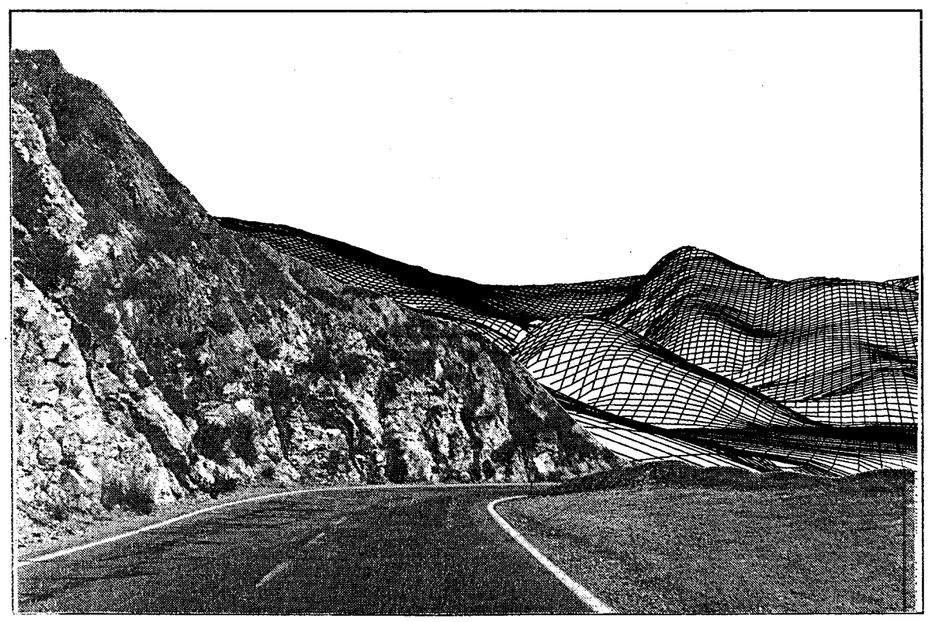
Existing Conditions at Viewshed Location F



Existing Conditions at Viewshed Location F



Mining Complete at Viewshed Location F



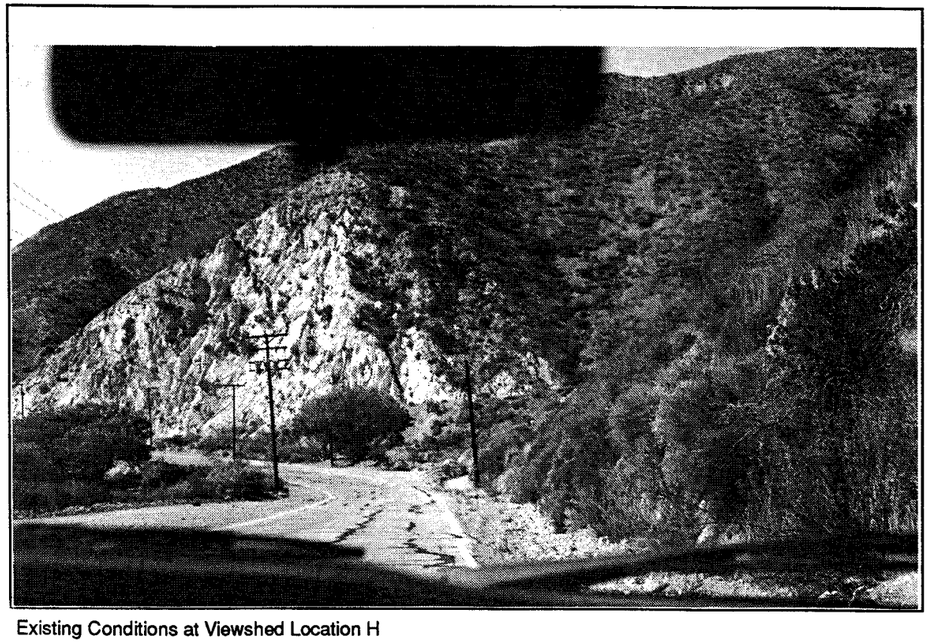
Restoration Complete at Viewshed Location F

N

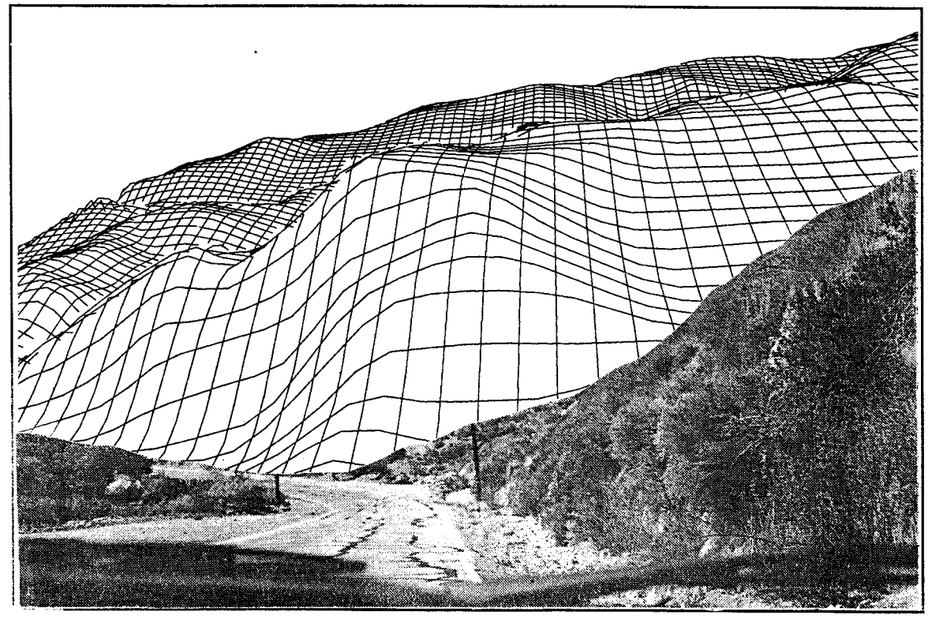
DATA RESOLUTION: 10M
(elevational sample points)
SCALE (grid size): 5M

SOURCE: Chambers Group, Inc.

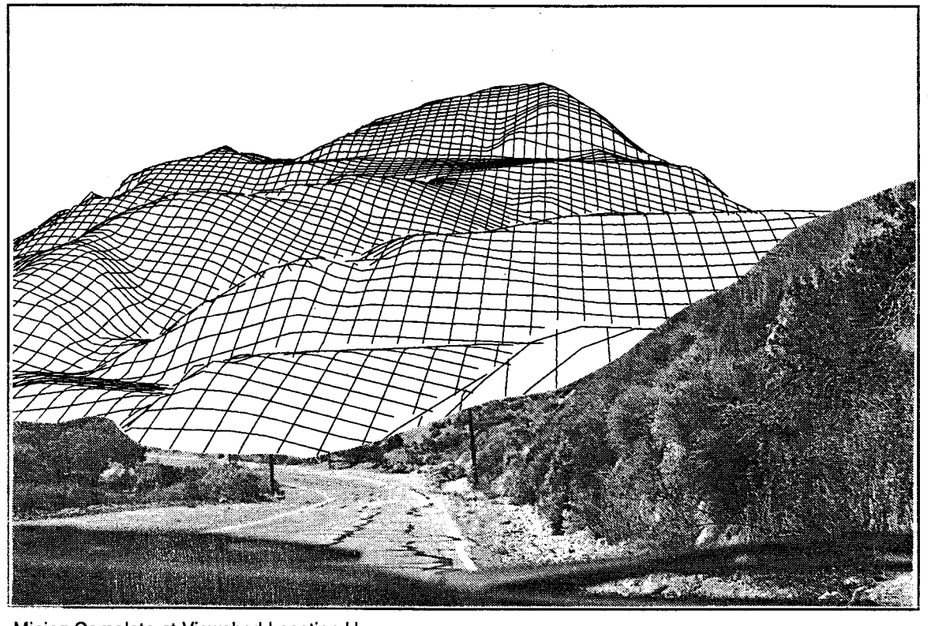
GIS SIMULATION VIEWSHED LOCATION F
Figure 3.1.10-10



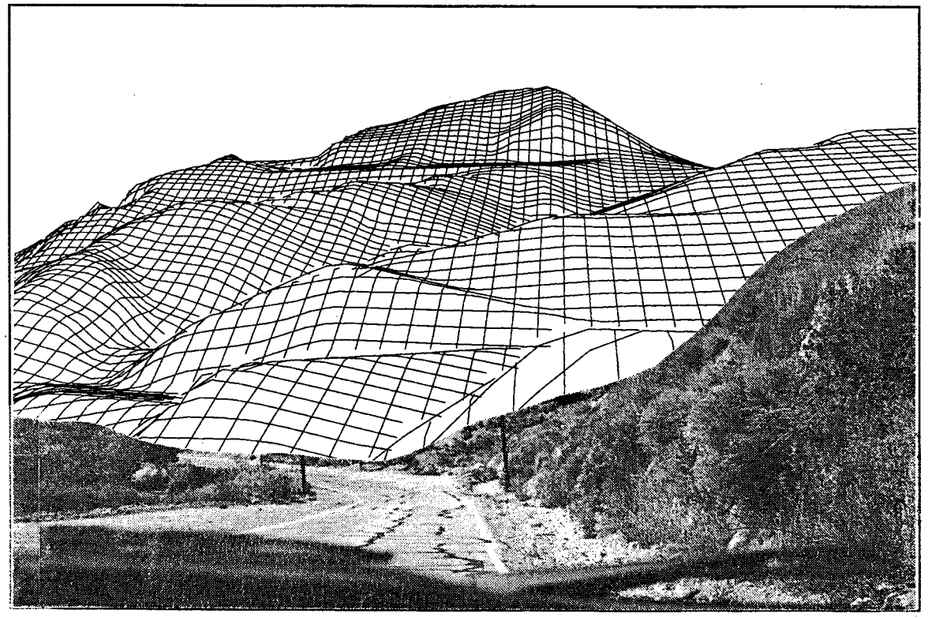
Existing Conditions at Viewshed Location H



Existing Conditions at Viewshed Location H



Mining Complete at Viewshed Location H



Restoration Complete at Viewshed Location H

N

DATA RESOLUTION: 10M
(elevational sample points)
SCALE (grid size): 5M
SOURCE: Chambers Group, Inc.

GIS SIMULATION VIEWSHED LOCATION H
Figure 3.1.10-11

photo. These areas are depicted on the mining-complete simulation. Additionally, the mining activity itself will remove the ridgeline, as seen in the photograph and the GIS existing condition simulation. These changes will result in a significant change from existing conditions, including changes in form, line, color, texture, and impressions of the viewshed. It should be noted that this view, so close to the Project entrance, is seen only for a short duration of actual driving time along Soledad Canyon Road. However, because of the proximity of the facilities to the road, viewer sensitivity would be high. Because of the extensive nature of the changes, a significant impact will result (see Mitigation Measure VQ1).

Extensive recontouring of the area is not planned during reclamation. Recontouring is planned to fill a portion of the area adjacent to Soledad Canyon Road in the vicinity of the office and administrative facility. Topographic changes that occurred during mining will remain as a permanent part of the landscape. With a successful revegetation effort, color and texture will be restored. However, because of the permanent topographic changes, impacts will remain significant after reclamation is completed.

Views of Mine Area From Soledad Canyon Looking West

The GIS simulation shown on Figure 3.1.10-12 is representative of the view near the intersection of Soledad Canyon Road and Aqua Dulce (viewshed Location K). The photo represents a driver's view from Soledad Canyon Road looking west (left out the car window) or from straight ahead traveling west on Agua Dulce. This simulation represents the view from approximately ½ mile east of the site boundary.

Within the canyon setting, the Project hillside forms the dominant visual feature because the curved road limits views to other landscapes. Similar views of the Project site are available from other locations along the northern portions of the curved road of Soledad Canyon from the site boundary to approximately 2 miles east of the site boundary. From 2 miles east of the site (Figure 3.1.10-6, viewshed Locations I and J), the site can be seen three times rounding Soledad Canyon curves and a fourth time from ½ mile east of the site until the site boundary is reached. Each time these curves are rounded, the Project site is directly in front of the viewer. Actual length of viewing time was determined for this stretch of roadway. During 3 minutes of timed driving at 35 mph westbound toward the site, the site is actually visible for 1 minute and 40 seconds. Thus, visual sensitivity to the site can be considered high. As previously mentioned, this portion of Soledad Canyon Road is considered to be a secondary scenic highway, with the preservation of ridgelines and minimization of visual impact objectives in the Area Plan. Additionally, the mining site will be visible to riders on the Metrolink commuter train for approximately 1 mile as the trains wind along the Santa Clara River.

Therefore, the site will be visible from the north side of passenger windows of trains for approximately 1 minute 30 seconds as the trains move through the canyon.

Extensive mining cuts will be visible from these locations. The cut in the topography and along the ridgeline will be very apparent. Changes to the site will include changes not only to form and line because of mining cuts but also to color and texture resulting from removal of the sparse vegetation. This will degrade the existing viewshed and character of the site and will also

change viewer expectations of the site. A significant impact will result (see Mitigation Measure VQ1).

Reclamation will provide for some recontouring of the cut area because a portion of this area will be filled in. The cut area will, however, remain visible in the context of the surrounding topography. With a successful revegetation effort, color and texture will return to the site and serve to reduce scarring. However, because the form and line changes will remain, the impact after reclamation will remain significant.

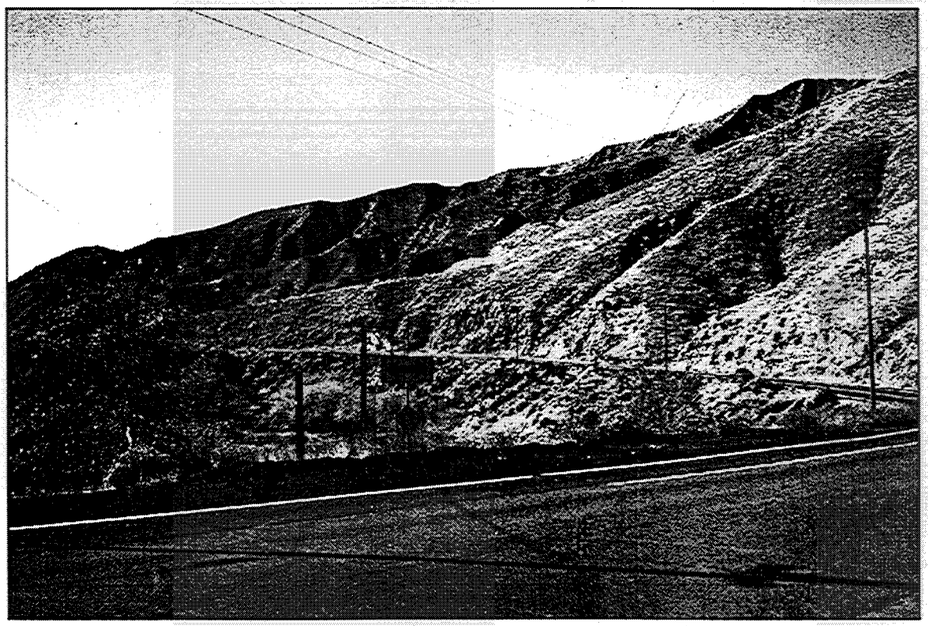
Viewshed of NFSA From Antelope Valley Freeway and Bee Canyon

Figure 3.1.10-13 presents the westerly driver's view of the Project site from the Antelope Valley Freeway. It should be noted that Antelope Valley Freeway drivers' dominant views are of the freeway in front of them and the terrain to the west of the site (or east of the site if traveling northbound). The site itself is a secondary visual element for the driver. As shown in the distance on Figure 3.1.10-13b, the freeway actually begins to turn away from the Project site, thus diverting the driver's view. Traveling easterly, the driver's view temporarily focuses on the west face of the site before the road turns, placing the NFSA of the site at a 90-degree angle to the driver. It should also be noted that, assuming no backup in traffic conditions, drivers traveling the freeway see the site for about 30 seconds.

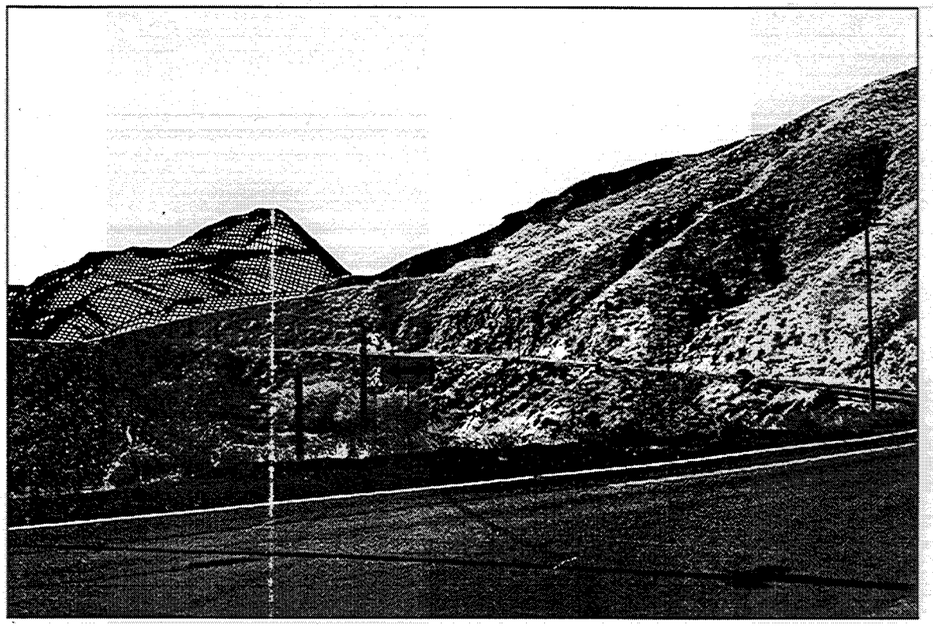
Over the life of the mine, about 13 million tons of fines will be stockpiled in the NFSA. The fines will fill in three existing ravines along the Project's north face, slightly raise the final elevation above existing conditions, and move the ridgeline closer to the freeway.

During mining operations, filling in of this north face will be visible from the Antelope Valley Freeway. Fines storage will be conducted in phases over the life of the Project, in benches from the bottom up. Some areas of denser vegetation will be removed for stabilization prior to filling. This vegetation is expected to be removed no sooner than 3 months prior to any surface disturbance. During operations, the active portions of the north slope will appear as areas lacking vegetation.

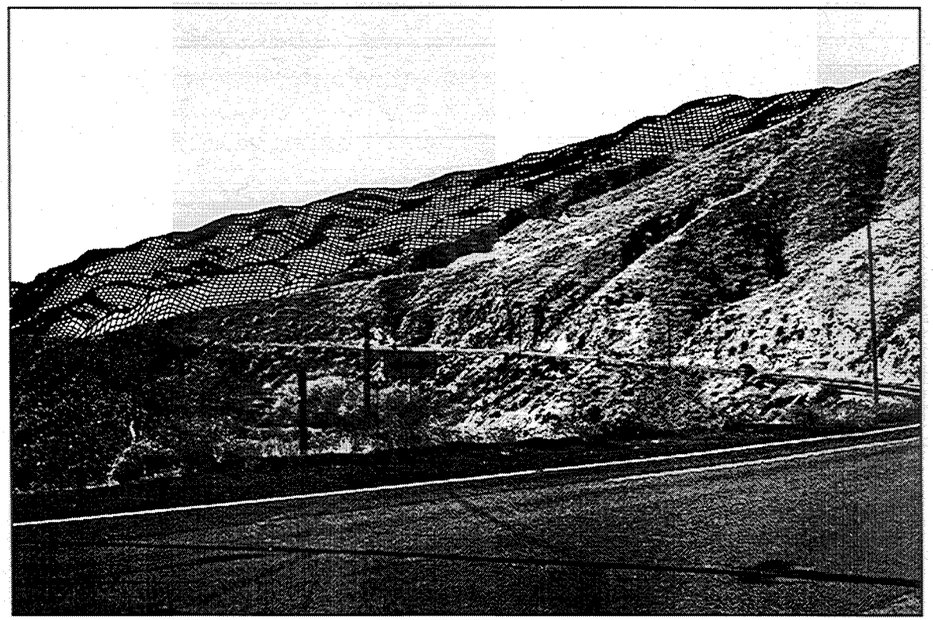
Operations along this north slope will result in changes to form and line from filling the ravine areas, and color and texture from the temporary lack of vegetation in these active areas. This will degrade the overall character of the immediate area. Even though the drivers along this portion of the freeway do not have a primary view of the site, passengers in the car who will have views of these changes must be considered. Additionally, because these types of changes tend to result in contrasts with the adjacent terrain, the eye will be pulled toward the changes until revegetation is complete. This will result in changes in the expectation of those viewers who frequently see the site while traveling on the freeway. The view from Bee Canyon, located between the north slope of the site and the Antelope Valley Freeway, would be similarly impacted. Although the County is presently considering a Specific Plan application to allow a mobile home park in Bee Canyon, present zoning does not include residential development, and no sensitive receptors are presently located in Bee Canyon. A significant impact will result (see Mitigation Measures VQ1, VQ2, and VQ3).



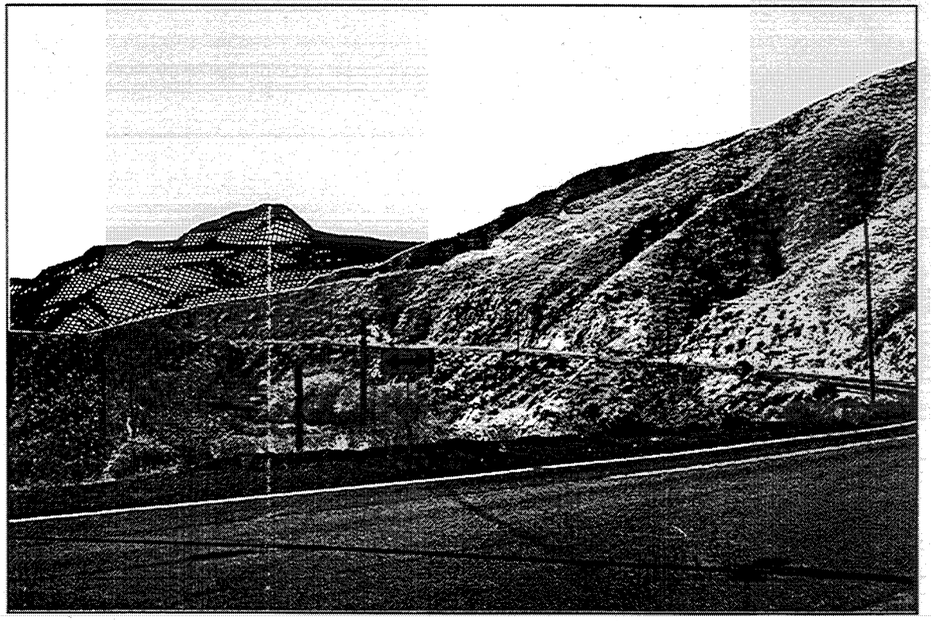
Existing Conditions at Viewshed Location K



Mining Complete at Viewshed Location K



Existing Conditions at Viewshed Location K



Restoration Complete at Viewshed Location K

N

Data Resolution: 5m
(Elevational Sample Points)
Scale (Grid Size): 5m
Source: U.S. Army Corps of Engineers

GIS SIMULATION VIEWSHED LOCATION K
Figure 3.1.10-12

6154G-7/93

a) View from Antelope Valley Freeway westbound approaching project area.

b) View from Antelope Valley Freeway westbound. Project area is falling away from the viewer.

c) View from Soledad Canyon eastbound. Project area is directly in front of the viewer.

LIMITATIONAL CAR VIEWING
Figure 3.1.10-13

Photosimulations of the NFSA are shown on Figures 3.1.10-14 through 3.1.10-16. Figure 3.1.10-14 shows the NFSA under existing conditions with the Antelope Valley Freeway in the foreground. The visual effect of the NFSA during mining operations is shown on Figure 3.1.10-15, which simulates fines placement up through 40 percent completion of the NFSA. Filling of the NFSA takes place with construction of benches in an upslope direction.

The effects of concurrent revegetation can be seen as filled areas lower on the slope take on a more natural appearance. The NFSA access road from the south side mining area is also shown, starting at the top of the ridge and traversing downward across the face of the NFSA. With concurrent revegetation, nearly the entire slope face exhibits a more natural appearance compared to benching without revegetation. Nonetheless, the continuation of line and form modifications during NFSA operations results in a significant adverse visual impact.

The appearance of the NFSA after final reclamation and on completion of mining is simulated on Figure 3.1.10-16. After completion of NFSA operations, the upper slopes will be recontoured, final revegetation will take place, and the roadway will be removed. This figure also shows the effect of lowering the ridgeline by 200 feet. Although visual impacts will be minimized, the change in topography will remain as a permanent alteration of the landscape. The filled ravines will project an overall smoother appearance as a result of vegetative growth and that will, over time, show some visual effects of natural erosion. Impacts will remain the same as those for operations, except that revegetation can be expected to restore color and texture to the site that will be consistent with surrounding terrain and will partially mitigate impacts.

Views From Angeles National Forest

Views of the mining cuts will be visible from higher elevations in the Angeles National Forest. Recreation and military users within the Forest will have views that look down on the mining operation. The number of viewers of the Project from this location is considered to be low, limited to the occasional hiker. Also, the Project site comprises only a small portion of the overall viewshed from higher and distant locations and is not a primary element in the viewshed. From these locations, land disturbance from other nearby mining operations, as well as from residential developments, will also be apparent. From a distance, the site will blend into the surrounding terrain in a manner consistent with other disturbance. Impacts will be less than significant for both operations and reclamation from viewshed areas within the Forest.

Aesthetics Policy Issues

According to the Santa Clarita Valley Plan, the Antelope Valley Freeway as it passes along the Project boundary is designated as a secondary priority study route for scenic highway designation. Even though further study of scenic highway designation has not been done, other portions of the plan recommend that ridgelines be preserved whenever possible. The Project will modify a ridgeline in this immediate area, resulting in a potentially significant policy impact.

NORTH FINES STORAGE AREA - EXISTING CONDITIONS
Figure 3.1.10-14

NORTH FINES STORAGE AREA - 40% COMPLETION
Figure 3.1.10-15

NORTH FINES STORAGE AREA - FINAL RECLAMATION
Figure 3.1.10-16

Nighttime Lighting

The proposed Project will incorporate night lighting in the processing and operations areas of the site that are primarily on the south side of the ridgeline. The only nighttime operations taking place on the north side of the ridge are associated with vehicles transporting materials to the NFSA. There will be no permanent or fixed lighting associated with the NFSA operations. The lighting to be provided at the site, which will be characteristic of an industrial operation, will include lighting for both employee safety and site security. The current lighting plan for nighttime operations on the south side of the ridge includes:

- five mercury vapor lamps @ 250 watts each,
- three high-pressure sodium lamps @ 150 watts each, and
- six high-pressure sodium lamps @ 100 watts each.

Lighting density, the amount of light per unit area (lumens/acre), is calculated below for the proposed Project.

No. Lights	Type	Wattage	Lumens/ Watt	Acreage	Lighting Density (lumen/acre)
5	MV	250	47	200	294
3	HPSV	150	95	200	214
6	HPSV	100	95	200	380
Total Lighting Density for Area South of Ridge					**888**
Total Lighting Density for Entire 500-Acre Facility					**355**
MV = mercury vapor **HPSV = high-pressure sodium vapor**					

For comparison, the lighting density for typical residential areas is estimated as follows.

No. of Lights Per Acre	Decimal Equivalent	Type	Wattage/ Light	Efficiency (lumen/W)	Lighting Density (lumen/acre)
1/2	0.5	HPSV	100	95	4,750
1/5	0.2	HPSV	100	95	1,900
1/10	0.1	HPSV	100	95	950
1/20	0.05	HPSV	100	95	475

The proposed lighting density on the south side of the ridge would be equivalent to less than 1 street light per 10 acres of land. Lighting densities for typical urban residential areas range from one street light for every 2 acres to one light for every 5 acres. The Project's lighting density will be less than half that of a typical urban residential area.

Furthermore, the primary ridgeline on the site will provide an effective barrier to prevent direct observation of light sources that could lead to glare impacts on freeway travelers. Because fixed lighting will be largely contained on the south side of the site, it will not be directly observable from the inhabited areas of Santa Clarita or Shadow Pines/Pinecrest. The sources of Project light that may be directly observed from Soledad Canyon Road would not be considered bright, uncomfortable, or visually disturbing (based on the comparison to typical urban lighting).

The Project's source of lighting will add to the amount of indirect light pollution or urban glow that may be observed in rural communities, such as Agua Dulce, that promote a dark night sky. Based on the sources of illumination in the region that could affect Agua Dulce's night sky, including the City of Santa Clarita's 18,000 inhabitants and the adjacent commercial and residential areas, as well as additional light sources in the greater Saugus/Valencia suburban communities, the Project's contribution is at best incremental. Nonetheless, the Project will incorporate modern light systems that direct lighting to specific areas of the site and will prevent stray lighting from spilling over onto adjacent properties (see Mitigation Measure VQ4). No lighting will be directed upward. Because of the very incremental nature of the impact and because site lighting systems will minimize stray lighting, the potential impact is considered less than significant.

3.1.10.3 Mitigation Measures

The discussion below is focused on impacts on those viewshed areas discussed above in the impacts section. The following mitigation measures are based on successful revegetation:

VQ1. Reclamation and revegetation will occur starting every growing season after mining activity has ceased in particular areas.

VQ2. During the final phase of reclamation, the roads will be resloped to conform with the surrounding topography.

VQ3. Reclamation of the NFSA will include grouping revegetation to mimic existing topography and contouring to add dimension to the filled slopes.

VQ4. The Project will incorporate modern lighting systems that direct lights to specific areas and prevent stray lighting from spilling onto surrounding areas. No lighting will be directed upward.

Air quality mitigation measure AQ3, the NFSA conveyor system, will have the effect of eliminating visible earth mover/scraper trips over the haul road to the NFSA, greatly reducing visible onsite equipment.

The fines conveyor will be located along the haul road from the mobile crusher located in the active mining area to the NFSA. The portion of the conveyor within the active mining area will be semi-stationary allowing it to periodically move as the active mining area progresses. The portion of the conveyor on the NFSA will be mobile allowing for fines to be distributed throughout the NFSA without the need for subsequent trucking of the material. Onsite mobile equipment will still be required to spread out and compact the fines. The conveyor itself is physically very small when compared to the mining cuts and NFSA, and even when compared to the haul road as shown in Figure 3.1.10-17. By painting the conveyor neutral earthen colors, and by utilizing a revegetated earthen berm for visual screening, the conveyor itself will be barely visible at any point.

From the visual quality perspective, the earth moving scrapers, as originally proposed, would be replaced with the conveyor system. Considering the low profile of the conveyor system, it is less visually intrusive as compared to earth movers moving back and forth over the haul road. Within a viewshed, such as that of the NFSA from the Antelope Valley Freeway, the eye is drawn to activity occurring within a passive setting. Thus, the eye is drawn to earth mover activity moving back and forth within an open area. With the conveyor system mitigation, there will be the appearance of less activity on the NFSA haul road, thus there would be less visual intrusion as compared to earth movers only. In addition, the berm along the edge of the roadway will serve to shield/partially shield the conveyor from viewers.

3.1.10.4 Unavoidable Significant Adverse Effects

View of Mine Area From Soledad Canyon Looking East

Impacts are considered significant during and at the end of mining operations. Planned reclamation and restoration of vegetation of the area from this viewshed will reduce impacts to a level of less than significant.

View of Project Area From Santa Clarita

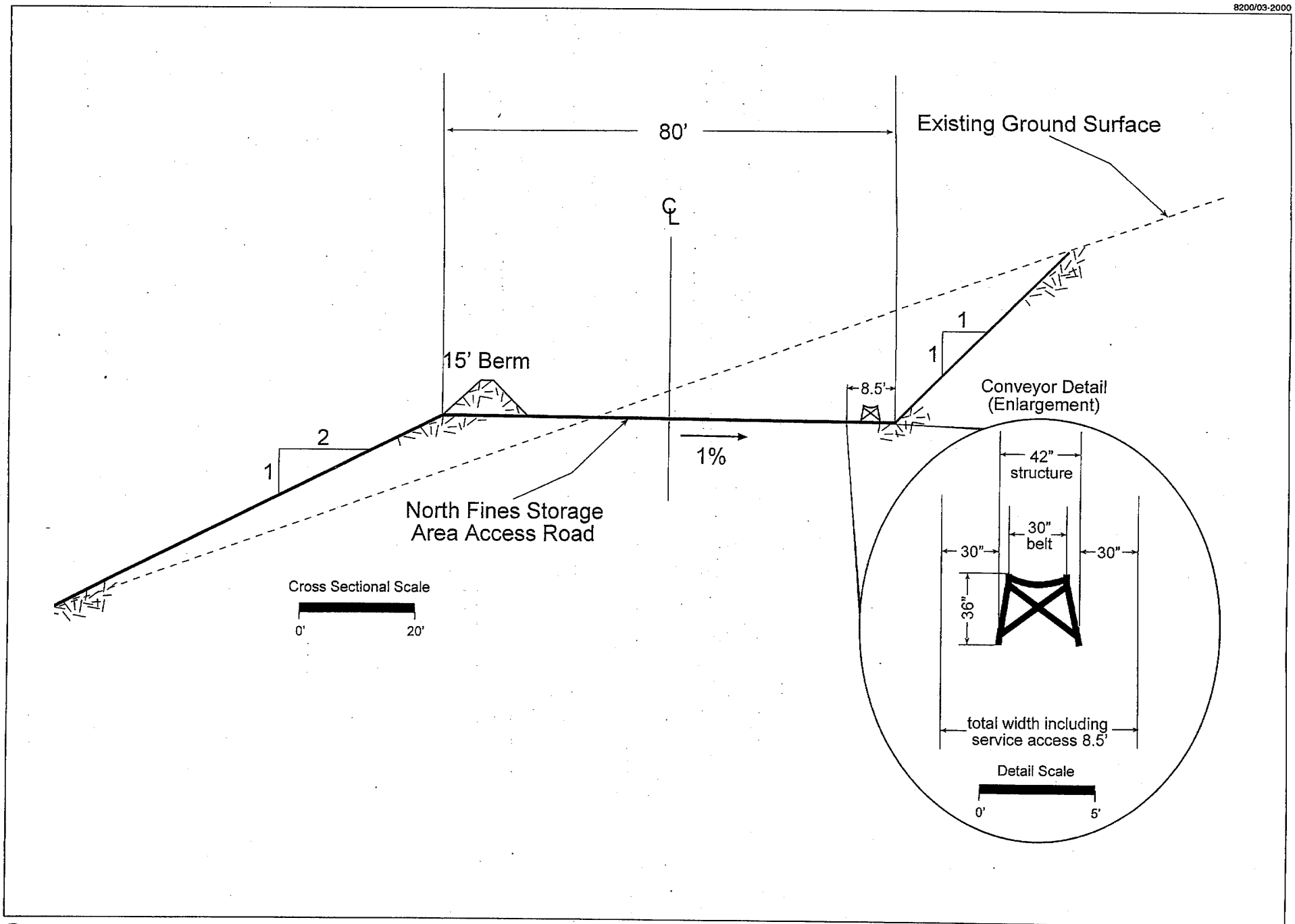
No significant impacts will occur, and no mitigation is required.

View of Mine Area From Soledad Canyon at Southwest Project Boundary Looking East

A significant impact is expected to occur because of alterations along the ridgeline and background hills. Restoration is planned to fill in a portion of the mining cut area and will approximate the original ridgeline. Additionally, reclamation and revegetation will restore color and texture to the area, which will reduce visual impacts from this viewshed to a level of less than significant.

View of Mine Area From Soledad Canyon within Project Boundary

Extensive surface alteration will result at this viewshed, and reclamation is proposed through the use of fines fill and terracing of cut slopes as well as revegetation. Impacts have been



Chambers Group

NORTH FINES STORAGE AREA ACCESS ROAD WITH FINES CONVEYOR
Figure 3.1.10-17

determined to be significant. Additional filling of the mined-out area could be considered to help restore the terrain and ridgeline. However, this would require an extensive and major effort that is not considered feasible. Thus, no effective mitigation is available for the loss of the form and line of the existing landform. Partial mitigation will be derived from revegetation. However, the primary focus (that of landform) will remain significant.

Views of Mine Area From Soledad Canyon Looking West

As above, no effective mitigation is available for the visual impact of ridgeline loss. Partial mitigation to texture and color will be gained from reclamation and revegetation. The impact, however, will remain significant.

Viewshed of NFSA From Antelope Valley Freeway and Bee Canyon

A significant impact has been identified for the NFSA because of the solid, filled-in ravine areas that will contrast with the surrounding terrain. Revegetation will provide partial mitigation to restore texture and color to the area, which will serve to partially blend the storage area with the natural terrain. Groupings of container plants are planned for placement to provide denser vegetation in areas of the reclaimed storage area. These groupings of plants will simulate the existing ravines. Recontouring, as shown on Figure 3.1.10-18, will also provide some additional form to the filled-in area. A mitigation plan for recontouring is presented on Figure 3.1.10-19. No mitigation is available, however, for the loss of form from the filled-in ravines. Therefore, the impact will remain significant.

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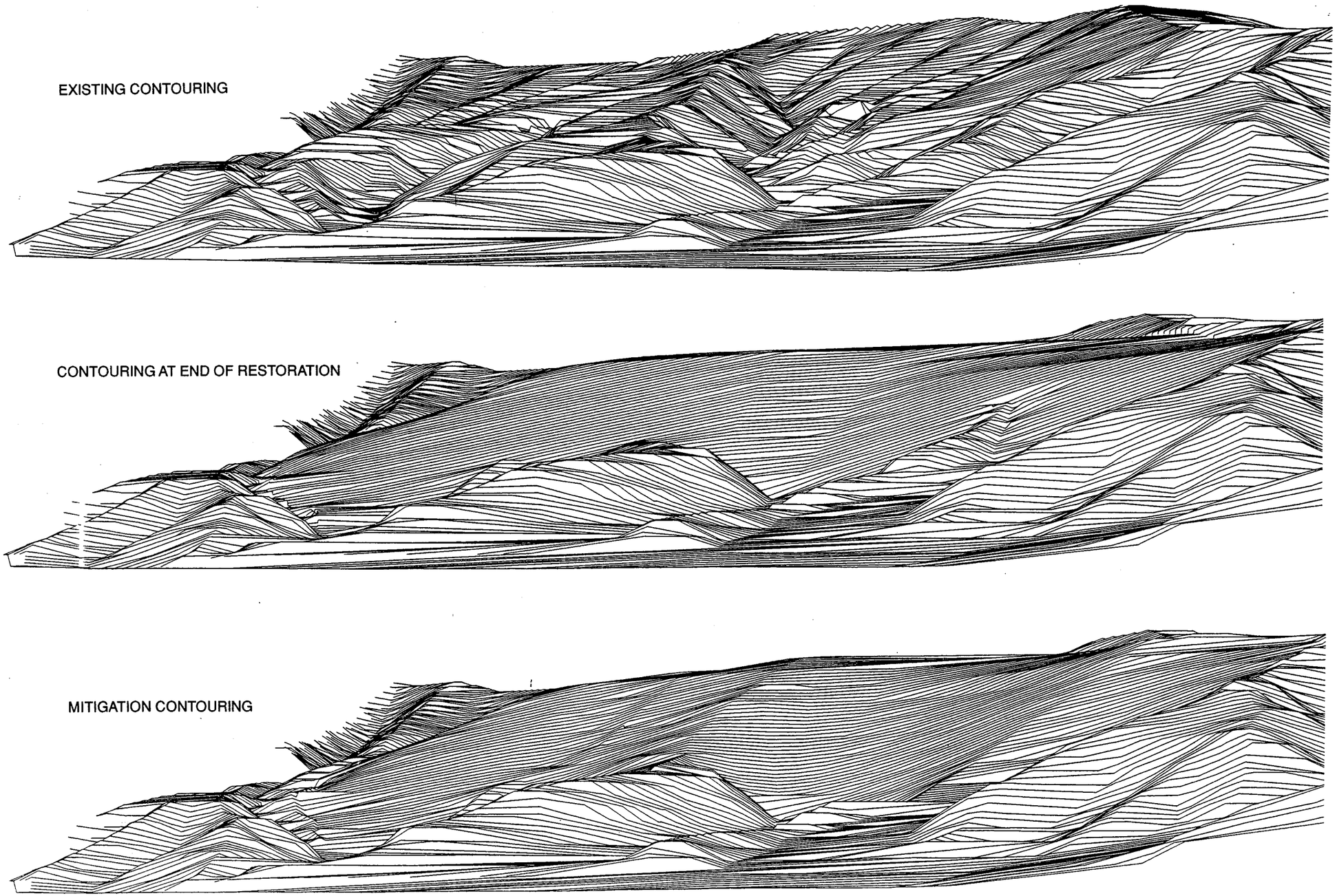
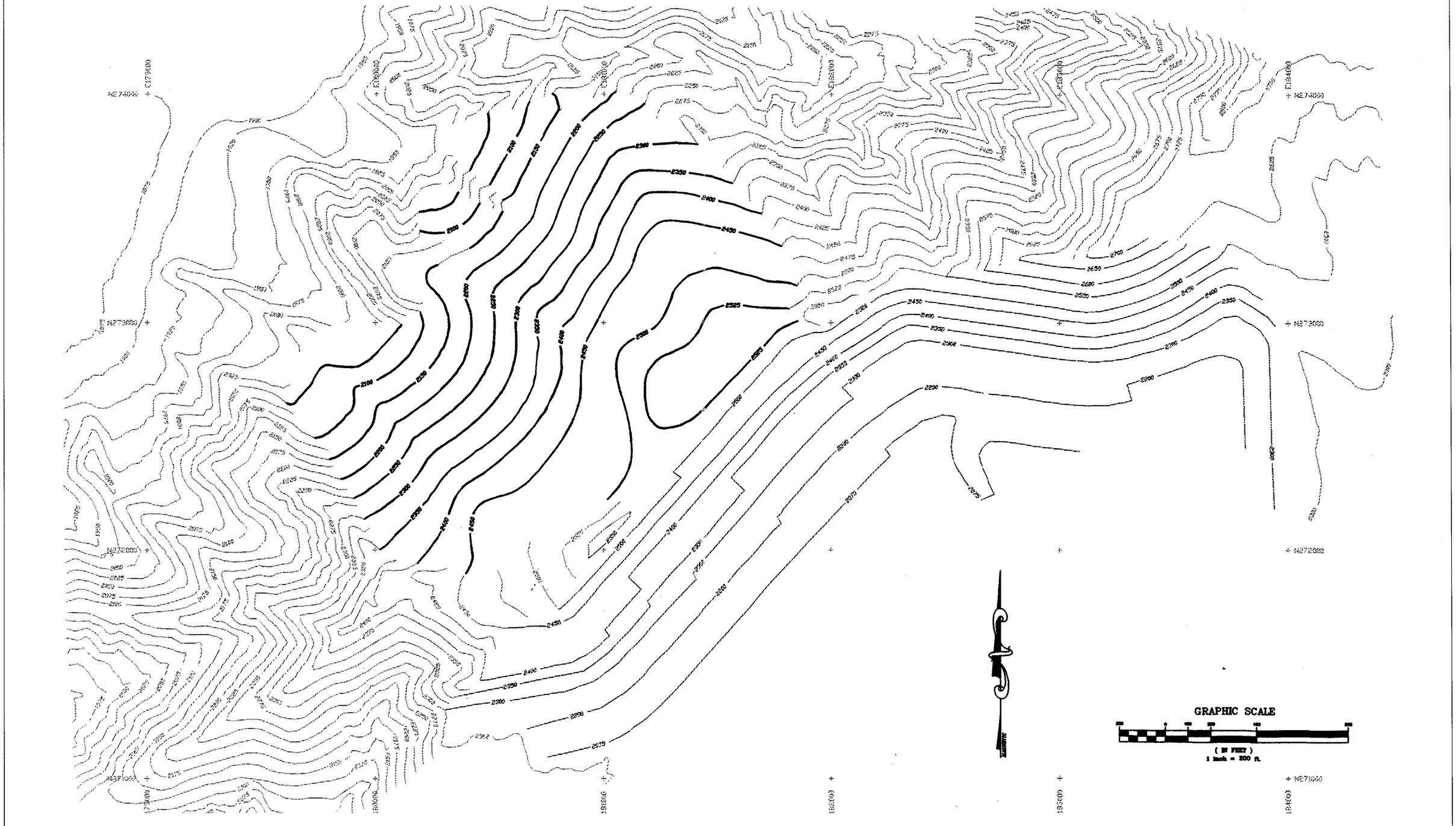


Source: C.A. RASMUSSEN, INC., 1995

NORTH FINES STORAGE AREA
MITIGATION DESIGN
Figure 3.1.10-18



Source: C.A. RASMUSSEN, INC., 1995

NORTH FINES STORAGE AREA
RECONTOURING MITIGATION DESIGN
Figure 3.1.10-19